

1191

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1176

Met Pro Arg Ser Ser His His Pro Pro Arg Arg His Tyr His His His
1 5 10 15

His Tyr His Gln Pro Pro Pro Ser Pro Cys Pro Ser Pro Pro Leu Thr
20 25 30

Ser Pro Ser Pro Leu Ser Trp Ile Leu Trp Thr Cys Trp Pro Ser Thr
35 40 45

Ala Ala Thr Arg Pro Gly Arg Arg Lys Trp Gly Cys Arg Leu Cys Pro
50 55 60

Arg His Ser Ser Pro Leu Leu Leu Leu His Leu Asn Leu Leu Ala Trp
65 70 75 80

Ala Pro Tyr Pro His Pro Ala Thr Thr Arg Gly Asp Arg Lys Gln Lys
85 90 95

Lys Arg Asp Gln Asn Lys Ser Ala Xaa Leu Arg Tyr Arg Gln Arg Lys
100 105 110

Gly Ala Gly Gly Val Glu Gly Xaa Gly Lys Gly Lys Leu Xaa Gly Gly
115 120 125

Trp Glu Gly Lys Gly
130

<210> 1177

<211> 583

<212> PRT

<213> Homo sapiens

<400> 1177

Thr Ala Gln Arg Pro Arg Ser Pro Glu Asn Cys Arg Pro Ser Thr Met
1 5 10 15

1192

Trp Leu Arg Ala Phe Ile Leu Ala Thr Leu Ser Ala Ser Ala Ala Trp
 20 25 30

Ala Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Val His Gly Lys
 35 40 45

Val Leu Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala
 50 55 60

Ile Phe Leu Gly Ile Pro Phe Ala Lys Pro Pro Leu Gly Pro Leu Arg
 65 70 75 80

Phe Thr Pro Pro Gln Pro Ala Glu Pro Trp Ser Phe Val Lys Asn Ala
 85 90 95

Thr Ser Tyr Pro Pro Met Cys Thr Gln Asp Pro Lys Ala Gly Gln Leu
 100 105 110

Leu Ser Glu Leu Phe Thr Asn Arg Lys Glu Asn Ile Pro Leu Lys Leu
 115 120 125

Ser Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Thr Pro Ala Asp Leu Thr
 130 135 140

Lys Lys Asn Arg Leu Pro Val Met Val Trp Ile His Gly Gly Gly Leu
 145 150 155 160

Met Val Gly Ala Ala Ser Thr Tyr Asp Gly Leu Ala Leu Ala Ala His
 165 170 175

Glu Asn Val Val Val Val Thr Ile Gln Tyr Arg Leu Gly Ile Trp Gly
 180 185 190

Phe Phe Ser Thr Gly Asp Glu His Ser Arg Gly Asn Trp Gly His Leu
 195 200 205

Asp Gln Val Ala Ala Leu Arg Trp Val Gln Asp Asn Ile Ala Ser Phe
 210 215 220

Gly Gly Asn Pro Gly Ser Val Thr Ile Phe Gly Glu Ser Ala Gly Gly
 225 230 235 240

Glu Ser Val Ser Val Leu Val Leu Ser Pro Leu Ala Lys Asn Leu Phe
 245 250 255

His Arg Ala Ile Ser Glu Ser Gly Val Ala Leu Thr Ser Val Leu Val
 260 265 270

Lys Lys Gly Asp Val Lys Pro Leu Ala Glu Gln Ile Ala Ile Thr Ala
 275 280 285

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Lys | Thr | Thr | Thr | Ser | Ala | Val | Met | Val | His | Cys | Leu | Arg | Gln | 290 | 295 | 300 |
| Lys | Thr | Glu | Glu | Glu | Leu | Leu | Glu | Thr | Thr | Leu | Lys | Met | Lys | Phe | Leu | 305 | 310 | 315 |
| Ser | Leu | Asp | Leu | Gln | Gly | Asp | Pro | Arg | Glu | Ser | Gln | Pro | Leu | Leu | Gly | 325 | 330 | 335 |
| Thr | Val | Ile | Asp | Gly | Met | Leu | Leu | Leu | Lys | Thr | Pro | Glu | Glu | Leu | Gln | 340 | 345 | 350 |
| Ala | Glu | Arg | Asn | Phe | His | Thr | Val | Pro | Tyr | Met | Val | Gly | Ile | Asn | Lys | 355 | 360 | 365 |
| Gln | Glu | Phe | Gly | Trp | Leu | Ile | Pro | Met | Gln | Leu | Met | Ser | Tyr | Pro | Leu | 370 | 375 | 380 |
| Ser | Glu | Gly | Gln | Leu | Asp | Gln | Lys | Thr | Ala | Met | Ser | Leu | Leu | Trp | Lys | 385 | 390 | 395 |
| Ser | Tyr | Pro | Leu | Val | Cys | Ile | Ala | Lys | Glu | Leu | Ile | Pro | Glu | Ala | Thr | 405 | 410 | 415 |
| Glu | Lys | Tyr | Leu | Gly | Gly | Thr | Asp | Asp | Thr | Val | Lys | Lys | Lys | Asp | Leu | 420 | 425 | 430 |
| Phe | Leu | Asp | Leu | Ile | Ala | Asp | Val | Met | Phe | Gly | Val | Pro | Ser | Val | Ile | 435 | 440 | 445 |
| Val | Ala | Arg | Asn | His | Arg | Asp | Ala | Gly | Ala | Pro | Thr | Tyr | Met | Tyr | Glu | 450 | 455 | 460 |
| Phe | Gln | Tyr | Arg | Pro | Ser | Phe | Ser | Ser | Asp | Met | Lys | Pro | Lys | Thr | Val | 465 | 470 | 475 |
| Ile | Gly | Asp | His | Gly | Asp | Glu | Leu | Phe | Ser | Val | Phe | Gly | Ala | Pro | Phe | 485 | 490 | 495 |
| Leu | Lys | Glu | Gly | Ala | Ser | Glu | Glu | Glu | Ile | Arg | Leu | Ser | Lys | Met | Val | 500 | 505 | 510 |
| Met | Lys | Phe | Trp | Ala | Asn | Phe | Ala | Arg | Asn | Gly | Asn | Pro | Asn | Gly | Glu | 515 | 520 | 525 |
| Gly | Leu | Pro | His | Trp | Pro | Glu | Tyr | Asn | Gln | Lys | Glu | Gly | Tyr | Leu | Gln | 530 | 535 | 540 |
| Ile | Gly | Ala | Asn | Thr | Gln | Ala | Ala | Gln | Lys | Leu | Lys | Asp | Lys | Glu | Val | 545 | 550 | 555 |

1194

Ala Phe Trp Thr Asn Leu Phe Ala Lys Lys Ala Val Glu Lys Pro Pro
 565 570 575

Gln Thr Glu His Ile Glu Leu
 580

<210> 1178

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1178

Pro Gly Arg Xaa Gln Leu Arg Ala Lys Phe Ser Cys Pro Pro Ala Asp
 1 5 10 15

Arg Val Asn Val Thr Val Arg Pro Gly Leu Ala Met Ala Leu Ser Gly
 20 25 30

Ser Thr Glu Pro Cys Ala Gln Leu Ser Ile Ser Ser Ile Gly Val Val
 35 40 45

Gly Thr Ala Glu Asp Asn Arg Ser His Ser Ala His Phe Phe Glu Phe
 50 55 60

Leu Thr Lys Glu Leu Ala Leu Gly Gln Asp Arg Ile Leu Ile Arg Phe
 65 70 75 80

Phe Pro Leu Glu Ser Trp Gln Ile Gly Lys Ile Gly Thr Val Met Thr
 85 90 95

Phe Leu

<210> 1179

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

1195

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1179

Phe Arg Pro Ala Val Ser Xaa Gly Ser Leu Cys Leu Pro Ala Arg Thr
 1 5 10 15

Ala His Ser Pro Ala Ser Ser Ala Ala Cys Arg Thr Met Ala Gln Gly
 20 25 30

Gln Arg Lys Phe Gln Ala His Lys Pro Ala Lys Ser Lys Thr Ala Ala
 35 40 45

Ala Xaa Ser Glu Lys Asn Arg Gly Pro Arg Lys Gly Gly Arg Val Ile
 50 55 60

Ala Pro Xaa Lys Ala Arg Val Val Gln Gln Gln Lys Leu Lys Lys Asn
 65 70 75 80

Leu Glu Val Gly Ile Arg Lys Lys Ile Glu His Asp Val Val Met Lys
 85 90 95

Ala Ser Ser Ser Leu Pro Lys Lys Leu Ala Leu Leu Lys Ala Pro Ala
 100 105 110

Lys Lys Lys Gly Ala Ala Ala Ala Thr Ser Ser Lys Thr Pro Ser
 115 120 125

<210> 1180

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1180

Ser Ser Tyr Arg Ser Lys Ala Tyr Thr His Thr Lys Ile Thr Val Pro
 1 5 10 15

Arg Glu Arg Val Cys Val Ser Val Arg Val Ser Val Cys Ala Arg Ala
 20 25 30

Arg Ser Trp Pro Asn Val Arg Thr Leu His Lys Gly Gly Arg Ser Ser

1196

| | | |
|---|----|-------|
| 35 | 40 | 45 |
| Tyr Arg Leu Phe Asn Val Arg Glu Thr Ile Phe Leu Leu Phe Gln Leu | | |
| 50 | 55 | 60 |
| Tyr Gln Ile Leu Val Pro Gln His Arg Asn Asp Ser Glu Ser Gln Thr | | |
| 65 | 70 | 75 80 |
| Lys Cys Ile Ile Cys Ser Ile Leu Ile Leu Leu Leu His Ser | | |
| 85 | 90 | |

<210> 1181
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 1181

| | | |
|---|-----|---------|
| Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser | | |
| 1 | 5 | 10 15 |
| Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser | | |
| 20 | 25 | 30 |
| Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly | | |
| 35 | 40 | 45 |
| Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala | | |
| 50 | 55 | 60 |
| Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn | | |
| 65 | 70 | 75 80 |
| Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys | | |
| 85 | 90 | 95 |
| Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr | | |
| 100 | 105 | 110 |
| Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala | | |
| 115 | 120 | 125 |
| Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr | | |
| 130 | 135 | 140 |
| Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr | | |
| 145 | 150 | 155 160 |
| Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu | | |
| 165 | 170 | 175 |

1197

Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe
 180 185 190

Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro
 195 200 205

Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu
 210 215 220

Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro
 225 230 235 240

Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu
 245 250 255

Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser
 260 265 270

Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys
 275 280 285

Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val
 290 295 300

Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu
 305 310 315 320

Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys
 325 330 335

Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro
 340 345 350

Tyr

<210> 1182

<211> 174

<212> PRT

<213> Homo sapiens

<400> 1182

Ala Arg Asp Ser Leu Gln Leu Ser Met Ala Gln Thr Ser Ser Tyr Phe
 1 5 10 15

Met Leu Ile Ser Cys Leu Met Phe Leu Ser Gln Ser Gln Gly Gln Glu
 20 25 30

1198

Ala Gln Thr Glu Leu Pro Gln Ala Arg Ile Ser Cys Pro Glu Gly Thr
35 40 45

Asn Ala Tyr Arg Ser Tyr Cys Tyr Tyr Phe Asn Glu Asp Arg Glu Thr
50 55 60

Trp Val Asp Ala Asp Leu Tyr Cys Gln Asn Met Asn Ser Gly Asn Leu
65 70 75 80

Val Ser Val Leu Thr Gln Ala Glu Gly Ala Phe Val Ala Ser Leu Ile
85 90 95

Lys Glu Ser Gly Thr Asp Asp Phe Asn Val Trp Ile Gly Leu His Asp
100 105 110

Pro Lys Lys Asn Arg Arg Trp His Trp Ser Ser Gly Ser Leu Val Ser
115 120 125

Tyr Lys Ser Trp Gly Ile Gly Ala Pro Ser Ser Val Asn Pro Gly Tyr
130 135 140

Cys Val Ser Leu Thr Ser Ser Thr Gly Phe Gln Lys Trp Lys Asp Val
145 150 155 160

Pro Cys Glu Asp Lys Phe Ser Phe Val Cys Lys Phe Lys Asn
165 170

<210> 1183

<211> 342

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (171)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1199

<222> (302)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (308)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1183

Ser Ile Phe Ser Tyr Ile Arg Leu Glu Leu Pro Ser Met Trp Leu Leu

1

5

10

15

Val Ser Val Ile Leu Ile Ser Arg Ile Ser Ser Val Gly Gly Glu Ala

20

25

30

Thr Phe Cys Asp Phe Pro Lys Ile Asn His Gly Ile Leu Tyr Asp Glu

35

40

45

Glu Lys Tyr Lys Pro Phe Ser Gln Val Pro Thr Gly Glu Val Phe Tyr

50

55

60

Tyr Ser Cys Glu Tyr Asn Phe Val Ser Pro Ser Lys Ser Phe Trp Thr

65

70

75

80

Arg Ile Thr Cys Thr Glu Glu Gly Trp Ser Pro Thr Pro Lys Cys Leu

85

90

95

Arg Leu Cys Phe Phe Pro Phe Val Glu Asn Gly His Ser Glu Ser Ser

100

105

110

Gly Gln Thr His Leu Glu Gly Asp Thr Val Gln Ile Ile Cys Asn Thr

115

120

125

Gly Tyr Arg Leu Gln Asn Asn Glu Asn Asn Ile Ser Cys Val Glu Arg

130

135

140

Gly Trp Ser Thr Pro Pro Lys Cys Arg Ser Thr Asp Thr Ser Cys Val

145

150

155

160

Asn Pro Pro Thr Val Gln Asn Ala Xaa Ile Xaa Ser Arg Gln Met Ser

165

170

175

Lys Tyr Pro Ser Gly Glu Arg Val Arg Tyr Xaa Cys Arg Ser Pro Tyr

180

185

190

Glu Met Phe Gly Asp Glu Glu Val Met Cys Leu Asn Gly Asn Trp Thr

195

200

205

Glu Pro Pro Gln Cys Lys Asp Ser Thr Gly Lys Cys Gly Pro Pro Pro

210

215

220

1200

Pro Ile Asp Asn Gly Asp Ile Thr Ser Phe Pro Leu Ser Val Tyr Ala
 225 230 235 240

Pro Ala Ser Ser Val Glu Tyr Gln Cys Gln Asn Leu Tyr Gln Leu Glu
 245 250 255

Gly Asn Lys Arg Ile Thr Cys Arg Asn Gly Gln Trp Ser Glu Pro Pro
 260 265 270

Lys Cys Leu His Pro Cys Val Ile Ser Arg Glu Ile Met Glu Asn Tyr
 275 280 285

Asn Ile Ala Leu Arg Trp Thr Ala Lys Gln Lys Leu Tyr Xaa Arg Thr
 290 295 300

Gly Glu Ser Xaa Glu Phe Val Cys Lys Arg Gly Tyr Arg Leu Ser Ser
 305 310 315 320

Arg Ser His Thr Leu Arg Thr Thr Cys Trp Asp Gly Lys Leu Glu Tyr
 325 330 335

Pro Thr Cys Ala Lys Arg
 340

<210> 1184

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1184

Pro Xaa Arg Pro Arg Gly Ala Ala Ala Ala Ala Ala Ala Gly Ala
 1 5 10 15

Ala Met Pro Lys Gly Gly Arg Lys Gly Gly His Lys Gly Arg Ala Arg
 20 25 30

Gln Tyr Thr Ser Pro Glu Glu Ile Asp Ala Gln Leu Gln Ala Glu Lys
 35 40 45

1201

Gln Lys Ala Arg Glu Glu Glu Glu Gln Lys Glu Gly Gly Asp Gly Ala
 50 55 60
 Ala Gly Asp Pro Lys Lys Glu Lys Lys Ser Leu Asp Ser Asp Glu Ser
 65 70 75 80
 Glu Asp Glu Glu Asp Asp Tyr Gln Gln Lys Arg Lys Gly Val Glu Gly
 85 90 95
 Leu Ile Asp Ile Glu Asn Pro Asn Arg Val Ala Gln Thr Thr Lys Lys
 100 105 110
 Val Thr Gln Leu Asp Leu Asp Gly Pro Lys Glu Leu Ser Arg Arg Glu
 115 120 125
 Arg Glu Glu Ile Glu Lys Gln Lys Ala Lys Glu Arg Tyr Met Lys Met
 130 135 140
 His Leu Ala Gly Lys Thr Glu Gln Ala Lys Ala Asp Leu Ala Arg Leu
 145 150 155 160
 Xaa Ile Ile Arg Lys Gln Arg Glu Glu Ala Ala Arg Lys Lys Glu Glu
 165 170 175
 Glu Arg Lys Ala Lys Asp Asp Ala Thr Leu Ser Gly Lys Arg Met Gln
 180 185 190
 Ser Leu Ser Leu Asn Lys
 195

<210> 1185

<211> 210

<212> PRT

<213> Homo sapiens

<400> 1185

Ala His Ala Ser Ala His Ala Ser Gly Met Asp Leu Ser Leu Leu Trp
 1 5 10 15
 Val Leu Leu Pro Leu Val Thr Met Ala Trp Gly Gln Tyr Gly Asp Tyr
 20 25 30
 Gly Tyr Pro Tyr Gln Gln Tyr His Asp Tyr Ser Asp Asp Gly Trp Val
 35 40 45
 Asn Leu Asn Arg Gln Gly Phe Ser Tyr Gln Cys Pro Gln Gly Gln Val
 50 55 60
 Ile Val Ala Val Arg Ser Ile Phe Ser Lys Lys Glu Gly Ser Asp Arg

1202

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | | 75 | | | | 80 |
| Gln | Trp | Asn | Tyr | Ala | Cys | Met | Pro | Thr | Pro | Gln | Ser | Leu | Gly | Glu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Glu | Cys | Trp | Trp | Glu | Glu | Ile | Asn | Arg | Ala | Gly | Met | Glu | Trp | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Thr | Cys | Ser | Asn | Asn | Gly | Leu | Val | Ala | Gly | Phe | Gln | Ser | Arg | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Glu | Ser | Val | Leu | Asp | Arg | Glu | Trp | Gln | Phe | Tyr | Cys | Cys | Arg | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Lys | Arg | Cys | Pro | Tyr | Ser | Cys | Trp | Leu | Thr | Thr | Glu | Tyr | Pro | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Tyr | Gly | Glu | Glu | Met | Asp | Met | Ile | Ser | Tyr | Asn | Tyr | Asp | Tyr | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Arg | Gly | Ala | Thr | Thr | Thr | Phe | Ser | Ala | Val | Glu | Arg | Asp | Arg | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Trp | Lys | Phe | Ile | Met | Cys | Arg | Met | Thr | Glu | Tyr | Asp | Cys | Glu | Phe | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | Val | | | | | | | | | | | | | | |
| | 210 | | | | | | | | | | | | | | |

<210> 1186

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1186

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | Ile | Tyr | Phe | Leu | Arg | Val | His | Arg | Leu | Trp | Ser | Ser | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Phe | Phe | Pro | Ser | Ala | Lys | Met | Ala | Leu | Glu | Thr | Val | Pro | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Leu | Arg | His | Leu | Arg | Ala | Cys | Leu | Leu | Cys | Ser | Leu | Val | Lys | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Asp | Gln | Phe | Glu | Tyr | Asp | Gly | Cys | Asp | Asn | Cys | Asp | Ala | Tyr | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Met | Lys | Gly | Asn | Arg | Glu | Met | Val | Tyr | Asp | Cys | Thr | Ser | Ser | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

1203

Phe Asp Gly Ile Ile Ala Met Met Ser Pro Glu Asp Ser Trp Val Ser
85 90 95

Lys Trp Gln Arg Val Ser Asn Phe Lys Pro Gly Val Tyr Ala Val Ser
100 105 110

Val Thr Gly Arg Leu Pro Gln Gly Ile Val Arg Glu Leu Lys Ser Arg
115 120 125

Gly Val Ala Tyr Lys Ser Arg Asp Thr Ala Ile Lys Thr
130 135 140

<210> 1187

<211> 76

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1187

Leu Leu Gly Ser Cys Leu Gln Glu Ala Met Thr Leu Asn Ser Glu Pro
1 5 10 15

Tyr Ser Val Leu Thr Ser Gly Ser His Val Phe Leu Cys Gln Val Ile
20 25 30

Lys Tyr Leu Val Leu Val Phe Cys Leu Xaa Pro Lys Leu Pro Leu Trp
35 40 45

Val His Arg Arg Leu Gly Ser Ile Val Arg Met Ala Ile Arg Glu Tyr
50 55 60

Lys Xaa Gly Phe Ser Lys Gly Leu Gly Xaa Asp Ser
65 70 75

1204

<210> 1188

<211> 516

<212> PRT

<213> Homo sapiens

<400> 1188

Ile Arg Ile Ala Ala Leu Asp Asp Phe Arg Thr Ser Leu Thr Met Ser
 1 5 10 15

Ser Thr Arg Ser Gln Asn Pro His Gly Leu Lys Gln Ile Gly Leu Asp
 20 25 30

Gln Ile Trp Asp Asp Leu Arg Ala Gly Ile Gln Gln Val Tyr Thr Arg
 35 40 45

Gln Ser Met Ala Lys Ser Arg Tyr Met Glu Leu Tyr Thr His Val Tyr
 50 55 60

Asn Tyr Cys Thr Ser Val His Gln Ser Asn Gln Ala Arg Gly Ala Gly
 65 70 75 80

Val Pro Pro Ser Lys Ser Lys Lys Gly Gln Thr Pro Gly Gly Ala Gln
 85 90 95

Phe Val Gly Leu Glu Leu Tyr Lys Arg Leu Lys Glu Phe Leu Lys Asn
 100 105 110

Tyr Leu Thr Asn Leu Leu Lys Asp Gly Glu Asp Leu Met Asp Glu Ser
 115 120 125

Val Leu Lys Phe Tyr Thr Gln Gln Trp Glu Asp Tyr Arg Phe Ser Ser
 130 135 140

Lys Val Leu Asn Gly Ile Cys Ala Tyr Leu Asn Arg His Trp Val Arg
 145 150 155 160

Arg Glu Cys Asp Glu Gly Arg Lys Gly Ile Tyr Glu Ile Tyr Ser Leu
 165 170 175

Ala Leu Val Thr Trp Arg Asp Cys Leu Phe Arg Pro Leu Asn Lys Gln
 180 185 190

Val Thr Asn Ala Val Leu Lys Leu Ile Glu Lys Glu Arg Asn Gly Glu
 195 200 205

Thr Ile Asn Thr Arg Leu Ile Ser Gly Val Val Gln Ser Tyr Val Glu
 210 215 220

Leu Gly Leu Asn Glu Asp Asp Ala Phe Ala Lys Gly Pro Thr Leu Thr

1205

| | | | | | | |
|---|--|-----|--|-----|--|-----|
| 225 | | 230 | | 235 | | 240 |
| Val Tyr Lys Glu Ser Phe Glu Ser Gln Phe Leu Ala Asp Thr Glu Arg | | | | | | |
| | | 245 | | 250 | | 255 |
| Phe Tyr Thr Arg Glu Ser Thr Glu Phe Leu Gln Gln Asn Pro Val Thr | | | | | | |
| | | 260 | | 265 | | 270 |
| Glu Tyr Met Lys Lys Ala Glu Ala Arg Leu Leu Glu Glu Gln Arg Arg | | | | | | |
| | | 275 | | 280 | | 285 |
| Val Gln Val Tyr Leu His Glu Ser Thr Gln Asp Glu Leu Ala Arg Lys | | | | | | |
| | | 290 | | 295 | | 300 |
| Cys Glu Gln Val Leu Ile Glu Lys His Leu Glu Ile Phe His Thr Glu | | | | | | |
| | | 305 | | 310 | | 315 |
| Phe Gln Asn Leu Leu Asp Ala Asp Lys Asn Glu Asp Leu Gly Arg Met | | | | | | |
| | | 325 | | 330 | | 335 |
| Tyr Asn Leu Val Ser Arg Ile Gln Asp Gly Leu Gly Glu Leu Lys Lys | | | | | | |
| | | 340 | | 345 | | 350 |
| Leu Leu Glu Thr His Ile His Asn Gln Gly Leu Ala Ala Ile Glu Lys | | | | | | |
| | | 355 | | 360 | | 365 |
| Cys Gly Glu Ala Ala Leu Asn Asp Pro Lys Met Tyr Val Gln Thr Val | | | | | | |
| | | 370 | | 375 | | 380 |
| Leu Asp Val His Lys Lys Tyr Asn Ala Leu Val Met Ser Ala Phe Asn | | | | | | |
| | | 385 | | 390 | | 395 |
| Asn Asp Ala Gly Phe Val Ala Ala Leu Asp Lys Ala Cys Gly Arg Phe | | | | | | |
| | | 405 | | 410 | | 415 |
| Ile Asn Asn Asn Ala Val Thr Lys Met Ala Gln Ser Ser Ser Lys Ser | | | | | | |
| | | 420 | | 425 | | 430 |
| Pro Glu Leu Leu Ala Arg Tyr Cys Asp Ser Leu Leu Lys Lys Ser Ser | | | | | | |
| | | 435 | | 440 | | 445 |
| Lys Asn Pro Glu Glu Ala Glu Leu Glu Asp Thr Leu Asn Gln Val Met | | | | | | |
| | | 450 | | 455 | | 460 |
| Val Val Phe Lys Tyr Ile Glu Asp Lys Asp Val Phe Gln Lys Phe Tyr | | | | | | |
| | | 465 | | 470 | | 475 |
| Ala Lys Met Leu Ala Lys Arg Leu Val His Gln Asn Ser Ala Ser Asp | | | | | | |
| | | 485 | | 490 | | 495 |
| Asp Ala Glu Ala Ser Met Ile Ser Lys Leu Lys Gln Ala Cys Gly Phe | | | | | | |

1206

500

505

510

Glu Tyr Thr Ser

515

<210> 1189

<211> 287

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (172)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (254)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (271)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (274)

<223> Xaa equals any of the naturally occurring L-amino acids

1207

<220>

<221> SITE

<222> (275)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (280)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1189

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Tyr | Cys | Asp | Glu | Ser | Arg | Leu | Ser | Asn | Leu | Leu | Arg | Arg | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Glu | Xaa | Asp | Arg | Asp | Xaa | Arg | Leu | Xaa | Thr | Val | Lys | Gln | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Phe | Ile | Gln | Gln | Pro | Glu | Asn | Lys | Leu | Val | Leu | Val | Lys | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Ile | Leu | Ala | Ala | Xaa | His | Asp | Val | Leu | Asn | Glu | Ser | Ser | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Gln | Glu | Leu | Arg | Gln | Glu | Gly | Ala | Cys | Cys | Leu | Gly | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ala | Ser | Leu | Ser | Tyr | Glu | Ala | Glu | Lys | Ile | Phe | Lys | Trp | Ile | Phe |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Phe | Ser | Ser | Ser | Ala | Lys | Asp | Glu | Val | Lys | Leu | Leu | Tyr | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ala | Thr | Tyr | Lys | Ala | Leu | Glu | Thr | Val | Gly | Glu | Lys | Lys | Ala | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Val | Met | Gln | Leu | Val | Met | Thr | Ser | Leu | Gln | Ser | Ile | Leu | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Asp | Thr | Pro | Glu | Leu | Leu | Cys | Lys | Cys | Val | Lys | Cys | Ile | Leu |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ala | Arg | Cys | Tyr | Pro | His | Ile | Phe | Ser | Xaa | Asn | Phe | Arg | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Asp | Ile | Leu | Val | Gly | Trp | His | Arg | Asp | His | Thr | Gln | Lys | Pro |
| | | | | 180 | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Thr | Gln | Gln | Val | Ser | Gly | Trp | Leu | Gln | Ser | Leu | Glu | Pro | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |

1208

Trp Val Ala Asp Leu Ala Phe Pro Thr Thr Leu Leu Gly Gln Phe Leu
210 215 220

Glu Asp Met Glu Ala Tyr Ala Glu Asp Leu Ser His Val Ala Ser Gly
225 230 235 240

Glu Ser Val Asp Glu Asp Val Pro Pro Pro Ser Val Ser Xaa Pro Lys
245 250 255

Leu Ala Ala Leu Leu Arg Val Phe Ser Thr Val Val Arg Ser Xaa Gly
260 265 270

Glu Xaa Xaa Ser Pro Ile Arg Xaa Leu Gln Leu Leu Arg His Thr
275 280 285

<210> 1190

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1190

Arg Pro Pro Ser Arg Trp Ser Trp Trp Gln Gly Lys Pro Thr Gly Gly
1 5 10 15

Val Cys Val Ala Ala Ala Arg Ser Ser Pro Ser Val Thr Ala Pro Thr
20 25 30

Ser Ser Asn Ala Leu Ala Tyr Leu His Ser Ser Ser Arg Pro Lys Arg
35 40 45

Pro Ala Trp Trp His Ser Val Pro Ala Arg Pro Leu Arg Gly Pro Arg
50 55 60

Thr Ala Met Ala Pro Thr Gly Val Ser Ala Cys Arg Arg Gln Lys Trp
65 70 75 80

Ala Pro His Ser Glu Gly Ala Ala Ala Val Gln Pro Gln Val Ala Leu
85 90 95

Ala Pro Gly Leu
100

<210> 1191

<211> 115

<212> PRT

<213> Homo sapiens

1209

<400> 1191

Asn Asp Val Ile His Gln Tyr Val Tyr Met Tyr Phe Tyr Ile Asp Leu
 1 5 10 15

Glu Asn Thr Ala Lys Thr Phe Met Thr Ser Cys Ile Thr Ala Phe Val
 20 25 30

Tyr Ile Phe Leu Thr Val Ile Ile Pro Thr Gly Thr Leu Thr Val Ala
 35 40 45

Leu Leu Asn Val Gln Asn Leu Tyr Phe Arg Asn Asn Lys Lys Lys Asp
 50 55 60

Thr Tyr Met Phe Pro Lys Gln Trp Cys Gly Glu Cys Val Arg Lys Thr
 65 70 75 80

Asn Leu Ile Gly Ser Thr Asn Thr Lys Cys Ile Thr Asn Ala Pro Val
 85 90 95

His Val Phe Val Leu Lys Arg Val Asn Glu Asp Leu Tyr Ile Ser Ile
 100 105 110

Asn Asp Ile
 115

<210> 1192

<211> 415

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1192

Arg Ile Pro Pro Glu Ser Leu Ala Arg Glu Xaa Arg Xaa Thr Lys Ser
 1 5 10 15

Phe Ser Asn Pro Arg Arg Pro Asp Arg Gly Thr Trp Ser Leu Ser Glu
 20 25 30

Lys Phe Asn Leu Arg Asp Lys Met Gln Trp Thr Ser Leu Leu Leu
 35 40 45

1210

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Leu | Phe | Ser | Leu | Ser | Gln | Ala | Gln | Tyr | Glu | Asp | Asp | Pro | His | 50 | 55 | 60 | |
| Trp | Trp | Phe | His | Tyr | Leu | Arg | Ser | Gln | Gln | Ser | Thr | Tyr | Tyr | Asp | Pro | 65 | 70 | 75 | 80 |
| Tyr | Asp | Pro | Tyr | Pro | Tyr | Glu | Thr | Tyr | Glu | Pro | Tyr | Pro | Tyr | Gly | Val | 85 | 90 | 95 | |
| Asp | Glu | Gly | Pro | Ala | Tyr | Thr | Tyr | Gly | Ser | Pro | Ser | Pro | Pro | Asp | Pro | 100 | 105 | 110 | |
| Arg | Asp | Cys | Pro | Gln | Glu | Cys | Asp | Cys | Pro | Pro | Asn | Phe | Pro | Thr | Ala | 115 | 120 | 125 | |
| Met | Tyr | Cys | Asp | Asn | Arg | Asn | Leu | Lys | Tyr | Leu | Pro | Phe | Val | Pro | Ser | 130 | 135 | 140 | |
| Arg | Met | Lys | Tyr | Val | Tyr | Phe | Gln | Asn | Asn | Gln | Ile | Thr | Ser | Ile | Gln | 145 | 150 | 155 | 160 |
| Glu | Gly | Val | Phe | Asp | Asn | Ala | Thr | Gly | Leu | Leu | Trp | Ile | Ala | Leu | His | 165 | 170 | 175 | |
| Gly | Asn | Gln | Ile | Thr | Ser | Asp | Lys | Val | Gly | Arg | Lys | Val | Phe | Ser | Lys | 180 | 185 | 190 | |
| Leu | Arg | His | Leu | Glu | Arg | Leu | Tyr | Leu | Asp | His | Asn | Asn | Leu | Thr | Arg | 195 | 200 | 205 | |
| Met | Pro | Gly | Pro | Leu | Pro | Arg | Ser | Leu | Arg | Glu | Leu | His | Leu | Asp | His | 210 | 215 | 220 | |
| Asn | Gln | Ile | Ser | Arg | Val | Pro | Asn | Asn | Ala | Leu | Glu | Gly | Leu | Glu | Asn | 225 | 230 | 235 | 240 |
| Leu | Thr | Ala | Leu | Tyr | Leu | Gln | His | Asn | Glu | Ile | Gln | Glu | Val | Gly | Ser | 245 | 250 | 255 | |
| Ser | Met | Arg | Gly | Leu | Arg | Ser | Leu | Ile | Leu | Leu | Asp | Leu | Ser | Tyr | Asn | 260 | 265 | 270 | |
| His | Leu | Arg | Lys | Val | Pro | Asp | Gly | Leu | Pro | Ser | Ala | Leu | Glu | Gln | Leu | 275 | 280 | 285 | |
| Tyr | Met | Glu | His | Asn | Asn | Val | Tyr | Thr | Val | Pro | Asp | Ser | Tyr | Phe | Arg | 290 | 295 | 300 | |
| Gly | Ala | Pro | Lys | Leu | Leu | Tyr | Val | Arg | Leu | Ser | His | Asn | Ser | Leu | Thr | 305 | 310 | 315 | 320 |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Asn | Asn | Gly | Leu | Ala | Ser | Asn | Thr | Phe | Asn | Ser | Ser | Ser | Leu | Leu | Glu | |
| | | | | 325 | | | | | 330 | | | | | | 335 | |
| Leu | Asp | Leu | Ser | Tyr | Asn | Gln | Leu | Gln | Lys | Ile | Pro | Pro | Val | Asn | Thr | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Asn | Leu | Glu | Asn | Leu | Tyr | Leu | Gln | Gly | Asn | Arg | Ile | Asn | Glu | Phe | Ser | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Ile | Ser | Ser | Phe | Cys | Thr | Val | Val | Asp | Val | Val | Asn | Phe | Ser | Lys | Leu | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Gln | Val | Leu | Arg | Leu | Asp | Gly | Asn | Glu | Ile | Lys | Arg | Ser | Ala | Met | Pro | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Ala | Asp | Ala | Pro | Leu | Cys | Leu | Arg | Leu | Ala | Ser | Leu | Ile | Glu | Ile | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |

```

<210> 1193
<211> 620
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (375)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (501)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (532)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (546)
<223> Xaa equals any of the naturally occurring L-amino acids

```

<400> 1193
Ser Ala Val Thr Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp
1 5 10 15
Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val

1212

| 20 | | | | | 25 | | | | | 30 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Glu | Glu | Arg | Val | Val | Met | Leu | Pro | Pro | Arg | Ala | Arg | Ser | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Lys | Ser | Phe | Val | Val | Thr | Ser | Val | Val | Ala | Phe | Pro | Thr | Asp | Ser | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Val | Gln | Arg | Thr | Gln | Asp | Asn | Ser | Cys | Ser | Phe | Gly | Leu | His | Ala |
| | 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Arg | Gly | Val | Glu | Leu | Met | Arg | Phe | Thr | Thr | Pro | Gly | Phe | Pro | Asp | Ser |
| | | | | | | 85 | | | | | 90 | | | | 95 |
| Pro | Tyr | Pro | Ala | His | Ala | Arg | Cys | Gln | Trp | Ala | Leu | Arg | Gly | Asp | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Ser | Val | Leu | Ser | Leu | Thr | Phe | Arg | Ser | Phe | Asp | Leu | Ala | Ser | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Glu | Arg | Gly | Ser | Asp | Leu | Val | Thr | Val | Tyr | Asn | Thr | Leu | Ser | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Glu | Pro | His | Ala | Leu | Val | Gln | Leu | Cys | Gly | Thr | Tyr | Pro | Pro | Ser |
| | 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Tyr | Asn | Leu | Thr | Phe | His | Ser | Ser | Gln | Asn | Val | Leu | Leu | Ile | Thr | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Thr | Asn | Thr | Glu | Arg | Arg | His | Pro | Gly | Phe | Glu | Ala | Thr | Phe | Phe |
| | | | 180 | | | | | | 185 | | | | 190 | | |
| Gln | Leu | Pro | Arg | Met | Ser | Ser | Cys | Gly | Gly | Arg | Leu | Arg | Lys | Ala | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Thr | Phe | Asn | Ser | Pro | Tyr | Tyr | Pro | Gly | His | Tyr | Pro | Pro | Asn | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Cys | Thr | Trp | Asn | Ile | Glu | Val | Pro | Asn | Asn | Gln | His | Val | Lys | Val |
| | 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Arg | Phe | Lys | Phe | Phe | Tyr | Leu | Leu | Glu | Pro | Gly | Val | Pro | Ala | Gly | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Cys | Pro | Lys | Asp | Tyr | Val | Glu | Ile | Asn | Gly | Glu | Lys | Tyr | Cys | Gly | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Ser | Gln | Phe | Val | Val | Thr | Ser | Asn | Ser | Asn | Lys | Ile | Thr | Val | Arg |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Phe | His | Ser | Asp | Gln | Ser | Tyr | Thr | Asp | Thr | Gly | Phe | Leu | Ala | Glu | Tyr |

1213

| | | | | |
|--|-----|-----|-----|-----|
| 290 | | 295 | | 300 |
| Leu. Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg | | | | |
| 305 | | 310 | | 320 |
| Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp | | | | |
| | 325 | | 330 | 335 |
| Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His | | | | |
| | 340 | | 345 | 350 |
| Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys | | | | |
| | 355 | | 360 | 365 |
| Asp Ser Val Asn Asp Cys Xaa Asp Asn Ser Asp Glu Gln Gly Cys Ser | | | | |
| | 370 | | 375 | 380 |
| Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys | | | | |
| | 385 | | 390 | 395 |
| Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu | | | | |
| | 405 | | 410 | 415 |
| Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr | | | | |
| | 420 | | 425 | 430 |
| Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp | | | | |
| | 435 | | 440 | 445 |
| Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys | | | | |
| | 450 | | 455 | 460 |
| Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp | | | | |
| | 465 | | 470 | 475 |
| Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly | | | | |
| | 485 | | 490 | 495 |
| Gln Gly Thr Ser Xaa Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val | | | | |
| | 500 | | 505 | 510 |
| Ser Ala Ala His Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp | | | | |
| | 515 | | 520 | 525 |
| Pro Thr Gln Xaa Thr Ala Phe Leu Gly Leu His Asp Gln Ser Gln Arg | | | | |
| | 530 | | 535 | 540 |
| Ser Xaa Leu Gly Cys Arg Ser Ala Gly Ser Ser Ala Ser Ser Pro Thr | | | | |
| | 545 | | 550 | 555 |
| Pro Ser Ser Met Thr Ser Pro Ser Thr Met Thr Ser Arg Cys Trp Ser | | | | |

1214

565 570 575
Trp Arg Asn Arg Gln Ser Thr Ala Pro Trp Cys Gly Pro Ser Ala Cys
580 585 590
Arg Thr Pro Pro Met Ser Ser Leu Pro Ala Arg Pro Ser Gly Ser Arg
595 600 605
Ala Gly Asp Thr Pro Ser Met Glu Ala Leu Ala Arg
610 615 620

<210> 1194
<211> 51
<212> PRT
<213> Homo sapiens

<400> 1194
Arg Thr Leu Cys His Leu Thr Thr Leu Asp Glu Leu Ser Cys Gln Arg
1 5 10 15
Glu Asn Leu Met Phe Lys Glu His Phe Pro Leu Ala Asp Val Thr Ala
20 25 30
Gly Phe Val Phe His Met Cys Phe Ser Tyr Thr His Leu Asn Ala Phe
35 40 45

Lys His Leu
50

<210> 1195
<211> 269
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (245)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (246)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (257)

1215

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (266)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1195

Pro Ala Glu Asp Ala Ala Ser Leu Thr Trp Gly Val Ala Ile Arg Ala
1 5 10 15

Gly Arg Ser Trp Phe Ser Gly Pro Ala Ala Pro Ala Ala Ala Met Ser
20 25 30

Phe Phe Pro Glu Leu Tyr Phe Asn Val Asp Asn Gly Tyr Leu Glu Gly
35 40 45

Leu Val Arg Gly Leu Lys Ala Gly Val Leu Ser Gln Ala Asp Tyr Leu
50 55 60

Asn Leu Val Gln Cys Glu Thr Leu Glu Asp Leu Lys Leu His Leu Gln
65 70 75 80

Ser Thr Asp Tyr Gly Asn Phe Leu Ala Asn Glu Ala Ser Pro Leu Thr
85 90 95

Val Ser Val Ile Asp Asp Arg Leu Lys Glu Lys Met Val Val Glu Phe
100 105 110

Arg His Met Arg Asn His Ala Tyr Glu Pro Leu Ala Ser Phe Leu Asp
115 120 125

Phe Ile Thr Tyr Ser Tyr Met Ile Asp Asn Val Ile Leu Leu Ile Thr
130 135 140

Gly Thr Leu His Gln Arg Ser Ile Ala Glu Leu Val Pro Lys Cys His
145 150 155 160

Pro Leu Gly Ser Phe Glu Gln Met Glu Ala Val Asn Ile Ala Gln Thr
165 170 175

Pro Ala Glu Leu Tyr Asn Ala Ile Leu Val Asp Thr Pro Leu Ala Ala
180 185 190

Phe Phe Gln Asp Cys Ile Ser Glu Gln Asp Leu Asp Glu Met Asn Ile
195 200 205

Glu Ile Ile Arg Asn Thr Leu Tyr Lys Ala Tyr Leu Glu Ser Phe Tyr
210 215 220

Lys Phe Cys Thr Leu Leu Gly Gly Thr Thr Ala Asp Ala Met Cys Pro

1216

225 230 235 240
 Ile Leu Glu Phe Xaa Xaa Gln Thr Val Pro Ser Ser Phe His Thr Val
 245 250 255
 Xaa Gly Ser Thr Leu Arg Ala Trp Arg Xaa Gly Ser Gly
 260 265

<210> 1196

<211> 301

<212> PRT

<213> Homo sapiens

<400> 1196

Arg His Glu Pro Ala Pro Arg Glu Ala Pro Gly Ser Arg Ala Ser Ala
 1 5 10 15
 Phe Leu Leu Pro Ser Phe Leu Pro Gly Pro Arg Leu Val Pro Ala Gly
 20 25 30
 His Pro Thr Ala Thr Met Phe Val Pro Cys Gly Glu Ser Ala Pro Asp
 35 40 45
 Leu Ala Gly Phe Thr Leu Leu Met Pro Ala Val Ser Val Gly Asn Val
 50 55 60
 Gly Gln Leu Ala Met Asp Leu Ile Ile Ser Thr Leu Asn Met Ser Lys
 65 70 75 80
 Ile Gly Tyr Phe Tyr Thr Asp Cys Leu Val Pro Met Val Gly Asn Asn
 85 90 95
 Pro Tyr Ala Thr Thr Glu Gly Asn Ser Thr Glu Leu Ser Ile Asn Ala
 100 105 110
 Glu Val Tyr Ser Leu Pro Ser Arg Lys Leu Val Ala Leu Gln Leu Arg
 115 120 125
 Ser Ile Phe Ile Lys Tyr Lys Ser Lys Pro Phe Cys Glu Lys Leu Leu
 130 135 140
 Ser Trp Val Lys Ser Ser Gly Cys Ala Arg Val Ile Val Leu Ser Ser
 145 150 155 160
 Ser His Ser Tyr Gln Arg Asn Asp Leu Gln Leu Arg Ser Thr Pro Phe
 165 170 175
 Arg Tyr Leu Leu Thr Pro Ser Met Gln Lys Ser Val Gln Asn Lys Ile
 180 185 190

1217

Lys Ser Leu Asn Trp Glu Glu Met Glu Lys Ser Arg Cys Ile Pro Glu
 195 200 205

Ile Asp Asp Ser Glu Phe Cys Ile Arg Ile Pro Gly Gly Gly Ile Thr
 210 215 220

Lys Thr Leu Tyr Asp Glu Ser Cys Ser Lys Glu Ile Gln Met Ala Val
 225 230 235 240

Leu Leu Lys Phe Val Ser Glu Gly Asp Asn Ile Pro Asp Ala Leu Gly
 245 250 255

Leu Val Glu Tyr Leu Asn Glu Trp Leu Gln Ile Leu Lys Pro Leu Ser
 260 265 270

Asp Asp Pro Thr Val Ser Ala Ser Arg Trp Lys Ile Pro Ser Ser Trp
 275 280 285

Arg Leu Leu Phe Gly Ser Gly Leu Pro Pro Ala Leu Phe
 290 295 300

<210> 1197

<211> 246

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1197

Gly Thr Arg Asp Leu Leu Leu Ala Ala Ala Ala Ala Thr Gly Lys Leu
 1 5 10 15

Lys Ser Phe Ala Arg Lys Phe Ile Asn Leu Asn Glu Phe Thr Thr Tyr
 20 25 30

1218

Gly Ser Glu Glu Ser Thr Lys Pro Ala Ser Val Arg Ala Leu Leu Phe
 35 40 45
 Xaa Ile Ser Phe Leu Met Leu Cys His Val Ala Gln Thr Tyr Gly Ser
 50 55 60
 Xaa Val Ile Leu Ser Glu Ser Arg Thr Gly Ala Glu Val Pro Phe Phe
 65 70 75 80
 Glu Thr Trp Met Gln Thr Cys Met Pro Glu Glu Gly Lys Ile Leu Asn
 85 90 95
 Pro Asp His Pro Cys Phe Arg Pro Asp Ser Thr Lys Val Glu Ser Leu
 100 105 110
 Val Ala Leu Leu Asn Asn Ser Ser Glu Met Lys Leu Val Gln Met Lys
 115 120 125
 Trp His Glu Ala Cys Leu Ser Ile Ser Ala Ala Ile Leu Glu Ile Leu
 130 135 140
 Asn Ala Trp Glu Asn Gly Val Leu Ala Phe Glu Ser Ile Gln Lys Ile
 145 150 155 160
 Thr Asp Asn Ile Lys Gly Lys Val Cys Ser Leu Ala Val Cys Ala Val
 165 170 175
 Ala Trp Leu Val Ala His Val Arg Met Leu Gly Leu Asp Glu Arg Glu
 180 185 190
 Lys Ser Leu Gln Met Ile Arg Gln Leu Ala Gly Pro Leu Phe Ser Glu
 195 200 205
 Asn Thr Leu Gln Phe Tyr Asn Glu Arg Val Val Ile Met Asn Ser Ile
 210 215 220
 Leu Gly Ala His Val Xaa Arg Arg Ala Ala Ala Asp Ser His Ala Gly
 225 230 235 240
 Phe Lys Phe Pro Ser Asn
 245

<210> 1198

<211> 465

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1219

<222> (203)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (460)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (461)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1198

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Met | Glu | Thr | Glu | Gln | Pro | Glu | Glu | Thr | Phe | Pro | Asn | Thr | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asn | Gly | Glu | Phe | Gly | Lys | Arg | Pro | Ala | Glu | Asp | Met | Glu | Glu | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Phe | Lys | Arg | Ser | Arg | Asn | Thr | Asp | Glu | Met | Val | Glu | Leu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Leu | Gln | Ser | Lys | Asn | Ala | Gly | Ala | Val | Ile | Gly | Lys | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Ile | Lys | Ala | Leu | Arg | Thr | Asp | Tyr | Asn | Ala | Ser | Val | Ser | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Ser | Ser | Gly | Pro | Glu | Arg | Ile | Leu | Ser | Ile | Ser | Ala | Asp | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ile | Gly | Glu | Ile | Leu | Lys | Lys | Ile | Ile | Pro | Thr | Leu | Glu | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Gln | Leu | Pro | Ser | Pro | Thr | Ala | Thr | Ser | Gln | Leu | Pro | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asp | Ala | Val | Glu | Cys | Leu | Asn | Tyr | Gln | His | Tyr | Lys | Gly | Ser | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Asp | Cys | Glu | Leu | Arg | Leu | Leu | Ile | His | Gln | Ser | Leu | Ala | Gly | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Gly | Val | Lys | Gly | Ala | Lys | Ile | Lys | Glu | Leu | Arg | Glu | Asn | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Thr | Thr | Ile | Lys | Leu | Phe | Gln | Glu | Cys | Cys | Pro | His | Ser | Thr | Asp |
| | | | | 180 | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Val | Leu | Ile | Gly | Gly | Lys | Pro | Asp | Xaa | Val | Val | Glu | Cys | Ile |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1220

| 195 | | | | | 200 | | | | | 205 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Ile | Leu | Asp | Leu | Ile | Ser | Glu | Ser | Pro | Ile | Lys | Gly | Arg | Ala |
| 210 | | | | | | 215 | | | | | 220 | | | | |
| Gln | Pro | Tyr | Asp | Pro | Asn | Phe | Tyr | Asp | Glu | Thr | Tyr | Asp | Tyr | Gly | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Thr | Met | Met | Phe | Asp | Asp | Arg | Arg | Gly | Arg | Pro | Val | Gly | Phe | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Met | Arg | Gly | Arg | Gly | Gly | Phe | Asp | Arg | Met | Pro | Pro | Gly | Arg | Gly | Gly |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Arg | Pro | Met | Pro | Pro | Ser | Arg | Arg | Asp | Tyr | Asp | Asp | Met | Ser | Pro | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Arg | Gly | Pro | Pro | Pro | Pro | Pro | Pro | Gly | Arg | Gly | Gly | Arg | Gly | Gly | Ser |
| 290 | | | | | | 295 | | | | | 300 | | | | |
| Arg | Ala | Arg | Asn | Leu | Pro | Leu | Pro | Pro | Pro | Pro | Pro | Pro | Arg | Gly | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Leu | Met | Ala | Tyr | Asp | Arg | Arg | Gly | Arg | Pro | Gly | Asp | Arg | Tyr | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Met | Val | Gly | Phe | Ser | Ala | Asp | Glu | Thr | Trp | Asp | Ser | Ala | Ile | Asp |
| | | | 340 | | | | | | 345 | | | | | 350 | |
| Thr | Trp | Ser | Pro | Ser | Glu | Trp | Gln | Met | Ala | Tyr | Glu | Pro | Gln | Gly | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Gly | Tyr | Asp | Tyr | Ser | Tyr | Ala | Gly | Gly | Arg | Gly | Ser | Tyr | Gly | Asp |
| 370 | | | | | | 375 | | | | | 380 | | | | |
| Leu | Gly | Gly | Pro | Ile | Ile | Thr | Thr | Gln | Val | Thr | Ile | Pro | Lys | Asp | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Gly | Ser | Ile | Ile | Gly | Lys | Gly | Gly | Gln | Arg | Ile | Lys | Gln | Ile | Arg |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| His | Glu | Ser | Gly | Ala | Ser | Ile | Lys | Ile | Asp | Glu | Pro | Leu | Glu | Gly | Ser |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Asp | Arg | Ile | Ile | Thr | Ile | Thr | Gly | Thr | Gln | Asp | Gln | Ile | Gln | Asn |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Gln | Tyr | Leu | Leu | Gln | Asn | Ser | Val | Ser | Ser | Xaa | Xaa | Leu | Ala | Leu |
| 450 | | | | | | 455 | | | | | 460 | | | | |

Cys

1221

465

<210> 1199

<211> 446

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1199

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Ala | Ala | Cys | Xaa | Thr | Gly | Pro | Glu | Phe | Pro | Gly | Arg | Pro | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | His | Glu | Met | Asp | Gln | Tyr | Trp | Gly | Ile | Gly | Ser | Leu | Ala | Ser |
| | | | 20 | | | | | | 25 | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Asn | Leu | Phe | Thr | Asn | Ser | Phe | Glu | Gly | Pro | Val | Leu | Asp | His |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Tyr | Tyr | Ala | Gly | Gly | Cys | Ser | Pro | His | Tyr | Ile | Leu | Asn | Thr | Arg |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Lys | Pro | Tyr | Asn | Val | Glu | Ser | Tyr | Thr | Pro | Gln | Thr | Gln | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Tyr | Glu | Phe | Ile | Leu | Xaa | Xaa | Tyr | Glu | Ser | Tyr | Ser | Asp | Phe | Glu |
| | | | | 85 | | | | | | 90 | | | | | 95 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Val | Thr | Glu | Lys | Met | Ala | Ser | Lys | Ser | Gly | Phe | Ser | Phe | Gly |
| | | | | 100 | | | | | 105 | | | | | 110 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Lys | Ile | Pro | Gly | Ile | Phe | Glu | Leu | Gly | Ile | Ser | Ser | Gln | Ser | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Lys | His | Tyr | Ile | Arg | Arg | Thr | Lys | Arg | Phe | Ser | His | Thr | Lys |
| | | 130 | | | | | 135 | | | | | 140 | | | |

1222

Ser Val Phe Leu His Ala Arg Ser Asp Leu Glu Val Ala His Tyr Lys
 145 150 155 160

Leu Lys Pro Arg Ser Leu Met Leu His Tyr Glu Phe Leu Gln Arg Val
 165 170 175

Lys Arg Leu Pro Leu Glu Tyr Ser Tyr Gly Glu Tyr Arg Asp Leu Phe
 180 185 190

Arg Asp Phe Gly Thr His Tyr Ile Thr Glu Ala Val Leu Gly Gly Ile
 195 200 205

Tyr Glu Tyr Thr Leu Val Met Asn Lys Glu Ala Met Glu Arg Gly Asp
 210 215 220

Tyr Thr Leu Asn Asn Val His Ala Cys Ala Lys Asn Asp Phe Lys Ile
 225 230 235 240

Gly Gly Ala Ile Glu Glu Val Tyr Val Ser Leu Gly Val Ser Val Gly
 245 250 255

Lys Cys Arg Gly Ile Leu Asn Glu Ile Lys Asp Arg Asn Lys Arg Asp
 260 265 270

Thr Met Val Glu Asp Leu Val Val Leu Val Arg Gly Gly Ala Ser Glu
 275 280 285

His Ile Thr Thr Leu Ala Tyr Gln Glu Leu Pro Thr Ala Asp Leu Met
 290 295 300

Gln Glu Trp Gly Asp Ala Val Gln Tyr Asn Pro Ala Ile Ile Lys Val
 305 310 315 320

Lys Val Glu Pro Leu Tyr Glu Leu Val Thr Ala Thr Asp Phe Ala Tyr
 325 330 335

Ser Ser Thr Val Arg Gln Asn Met Lys Gln Ala Leu Glu Glu Phe Gln
 340 345 350

Lys Glu Val Ser Ser Cys His Cys Ala Pro Cys Gln Gly Asn Gly Val
 355 360 365

Pro Val Leu Lys Gly Ser Arg Cys Asp Cys Ile Cys Pro Val Gly Ser
 370 375 380

Gln Gly Leu Ala Cys Glu Val Ser Tyr Arg Lys Asn Thr Pro Ile Asp
 385 390 395 400

Gly Lys Trp Asn Cys Trp Ser Asn Trp Ser Ser Cys Ser Gly Arg Arg
 405 410 415

1223

Lys Thr Arg Gln Arg Gln Cys Asn Asn Pro Pro Pro Gln Asn Gly Gly
 420 425 430

Ser Pro Cys Ser Gly Pro Ala Ser Glu Thr Leu Asp Cys Ser
 435 440 445

<210> 1200

<211> 437

<212> PRT

<213> Homo sapiens

<400> 1200

Leu Gly Ser Ser Asp Ser Tyr Ala Ser Pro Gly Arg Ala Ala Ala Pro
 1 5 10 15

Pro Ala Ala Ala Gly Pro Gly Asp Thr Ser Ala Cys Tyr Lys Ser Ser
 20 25 30

Gly Pro Arg Cys Leu Leu Pro Asp Leu Ala Pro Ser Ser Glu Pro Gly
 35 40 45

Ala Cys Leu Gly Gly Leu Ser Val Phe Thr Met Glu Gln Leu Ser Ser
 50 55 60

Ala Asn Thr Arg Phe Ala Leu Asp Leu Phe Leu Ala Leu Ser Glu Asn
 65 70 75 80

Asn Pro Ala Gly Asn Ile Phe Ile Ser Pro Phe Ser Ile Ser Ser Ala
 85 90 95

Met Ala Met Val Phe Leu Gly Thr Arg Gly Asn Thr Ala Ala Gln Leu
 100 105 110

Ser Lys Thr Phe His Phe Asn Thr Val Glu Glu Val His Ser Arg Phe
 115 120 125

Gln Ser Leu Asn Ala Asp Ile Asn Lys Arg Gly Ala Ser Tyr Ile Leu
 130 135 140

Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys Thr Tyr Asn Phe Leu Pro
 145 150 155 160

Glu Phe Leu Val Ser Thr Gln Lys Thr Tyr Gly Ala Asp Leu Ala Ser
 165 170 175

Val Asp Phe Gln His Ala Ser Glu Asp Ala Arg Lys Thr Ile Asn Gln
 180 185 190

1224

Trp Val Lys Gly Gln Thr Glu Gly Lys Ile Pro Glu Leu Leu Ala Ser
 195 200 205

Gly Met Val Asp Asn Met Thr Lys Leu Val Leu Val Asn Ala Ile Tyr
 210 215 220

Phe Lys Gly Asn Trp Lys Asp Lys Phe Met Lys Glu Ala Thr Thr Asn
 225 230 235 240

Ala Pro Phe Arg Leu Asn Lys Lys Asp Arg Lys Thr Val Lys Met Met
 245 250 255

Tyr Gln Lys Lys Lys Phe Ala Tyr Gly Tyr Ile Glu Asp Leu Lys Cys
 260 265 270

Arg Val Leu Glu Leu Pro Tyr Gln Gly Glu Glu Leu Ser Met Val Ile
 275 280 285

Leu Leu Pro Asp Asp Ile Glu Asp Glu Ser Thr Gly Leu Lys Lys Ile
 290 295 300

Glu Glu Gln Leu Thr Leu Glu Lys Leu His Glu Trp Thr Lys Pro Glu
 305 310 315 320

Asn Leu Asp Phe Ile Glu Val Asn Val Ser Leu Pro Arg Phe Lys Leu
 325 330 335

Glu Glu Ser Tyr Thr Leu Asn Ser Asp Leu Ala Arg Leu Gly Val Gln
 340 345 350

Asp Leu Phe Asn Ser Ser Lys Ala Asp Leu Ser Gly Met Ser Gly Ala
 355 360 365

Arg Asp Ile Phe Ile Ser Lys Ile Val His Lys Ser Phe Val Glu Val
 370 375 380

Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Ala Gly Ile Ala Thr
 385 390 395 400

Phe Cys Met Leu Met Pro Glu Glu Asn Phe Thr Ala Asp His Pro Phe
 405 410 415

Leu Phe Phe Ile Arg His Asn Ser Ser Gly Ser Ile Leu Phe Leu Gly
 420 425 430

Arg Phe Ser Ser Pro
 435

<210> 1201

1225

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1201

Gln Leu Gly Pro Val Val Gly Gly Trp Tyr Lys Val Leu Asp Arg Phe
 1 5 10 15

Ile Pro Gly Thr Thr Lys Val Asp Ala Leu Lys Lys Met Leu Leu Asp
 20 25 30

Gln Gly Gly Phe Ala Pro Cys Phe Leu Gly Cys Phe Leu Pro Leu Val
 35 40 45

Gly Ala Leu Asn Gly Leu Ser Ala Gln Asp Asn Trp Pro Asn Tyr Ser
 50 55 60

Gly Ile Ile Leu Met Pro Leu Ser Pro Thr Thr Ile Tyr Gly Leu Leu
 65 70 75 80

Cys Xaa

<210> 1202

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1202

Ile Ser Arg Ser Ser Ala Arg Arg Gln Pro Phe Arg His Gly Arg Leu
 1 5 10 15

Trp Arg Ala Ala Ala Met Ala Leu Arg Tyr Pro Met Ala Val Gly Leu
 20 25 30

Asn Lys Gly His Lys Val Thr Lys Asn Val Ser Lys Pro Arg His Ser
 35 40 45

Arg Arg Arg Gly Arg Leu Thr Lys His Thr Lys Phe Val Arg Asp Met
 50 55 60

Ile Arg Glu Val Cys Gly Phe Ala Pro Tyr Glu Arg Arg Ala Met Glu
 65 70 75 80

1226

Leu Leu Lys Val Ser Lys Asp Lys Arg Ala Leu Lys Phe Ile Lys Lys
85 90 95

Arg Val Gly Thr His Ile Arg Ala Lys Arg Lys Arg Glu Glu Leu Ser
100 105 110

Asn Val Leu Ala Ala Met Arg Lys Ala Ala Ala Lys Lys Asp
115 120 125

<210> 1203

<211> 130

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1203

Asp Trp Asn Pro Asp Leu Gln Ala Ser Ala Val Cys Ile Lys Arg Val
1 5 10 15

Gly Glu Ser Gly Pro Leu Ala Gln Glu Pro Xaa Leu Leu Lys Glu Gly
20 25 30

Phe Lys Ala Lys Trp Val Cys Gln Arg Cys Cys Leu Pro Phe Leu Glu
35 40 45

Met Leu Ile Ser Leu Ser Lys Thr Glu Lys Ser Arg Cys Tyr Arg Asn
50 55 60

Asn Leu Val Cys Cys Ile Asn Cys Ser Trp Ala Trp Ser Ser Ile Pro
65 70 75 80

Thr Leu Arg Phe Pro Ala Ser Leu Cys Cys Pro Gly Ser His Ser Cys
85 90 95

Arg Arg Pro Asn Pro Leu Ala Val Phe Cys Leu Lys Ile Trp Gly Ala
100 105 110

Pro Ser Leu Ser Ser Pro Gly Asn Ser Leu Ala Glu Gly Gly Asp Pro
115 120 125

Pro Gln
130

1227

<210> 1204

<211> 228

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (189)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (196)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (199)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (225)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (228)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1204

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ala | Ala | Phe | Glu | Pro | Ala | Thr | Leu | Ala | Trp | Lys | Phe | Pro | Phe | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Phe | Cys | Leu | Leu | Leu | Pro | Ser | Pro | Ser | Pro | Arg | Tyr | Leu | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | His | Leu | Ile | Ser | Leu | Cys | Ser | Ser | Val | Ser | Pro | Thr | His | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gly | Asp | Ser | Gly | Gly | Ser | Leu | Thr | Ser | Leu | Leu | Ser | Asn | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Gly | Leu | Ala | Ser | Val | Ala | Ser | His | Ile | Asp | Val | Thr | Leu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Pro | Gln | Arg | Gly | Arg | Arg | Asp | Arg | Leu | Ser | Pro | His | Leu | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Tyr | Ser | Pro | Leu | Tyr | Ser | Arg | Phe | Asp | His | Leu | Ser | Pro | Ser | Ala |
| | | | 100 | | | | | 105 | | | | | | 110 | |

1228

Ala Pro Ser His Phe Gly Gln Ser Gln Ala Pro Ile Arg Leu Pro Pro
 115 120 125
 Pro Pro Gly Ala Pro Ser Ile Ser Leu Ser Pro Leu Pro Gln Asn Leu
 130 135 140
 Cys Lys Gly Tyr Glu Arg Asp Pro Leu Pro Ser Arg Pro Pro Leu Arg
 145 150 155 160
 Ala Val Arg Ser Lys Lys Gln Lys Leu Val Gly Gly Trp Leu Gly Leu
 165 170 175
 Cys Pro Val Pro Arg Trp Asp Lys Leu Ala Phe Ser Xaa Ile Pro Ser
 180 185 190
 Trp Val Pro Xaa Ser Phe Xaa Ala Pro Gly Ala Arg Thr His Cys Ala
 195 200 205
 Val Phe Leu Phe Ser Phe Val Gly Lys Gly Thr Lys Val Phe Ala Lys
 210 215 220
 Xaa Pro Val Xaa
 225

<210> 1205

<211> 270

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1205

Leu Pro Gly Ala Val Ala Ala Ser Ser Gly Ser Pro Pro Gly Ser Ala
 1 5 10 15
 Leu Ala Ala Val Ala Ser Gly Gly Asp Leu Phe Pro Gly Gln Pro Val
 20 25 30
 Ser Glu Leu Ile Ala Gln Leu Leu Arg Ala Glu Pro Tyr Pro Ala Ala
 35 40 45
 Ala Gly Arg Phe Gly Ala Gly Gly Gly Ala Ala Gly Ala Val Leu Gly
 50 55 60
 Ile Asp Asn Val Cys Glu Leu Ala Ala Arg Leu Leu Phe Ser Thr Val

1229

| | | | | | | |
|---|-----|----|--|-----|--|-----|
| 65 | | 70 | | 75 | | 80 |
| Glu Trp Ala Arg His Ala Pro Phe Phe Pro Glu Leu Pro Val Ala Asp | | | | | | |
| | 85 | | | 90 | | 95 |
| Gln Val Ala Leu Leu Arg Leu Ser Trp Ser Glu Leu Phe Val Leu Asn | | | | | | |
| | 100 | | | 105 | | 110 |
| Ala Ala Gln Ala Ala Leu Pro Leu His Thr Ala Pro Leu Leu Ala Xaa | | | | | | |
| | 115 | | | 120 | | 125 |
| Ala Gly Leu His Ala Ala Pro Met Ala Ala Glu Arg Ala Val Ala Phe | | | | | | |
| | 130 | | | 135 | | 140 |
| Met Asp Gln Val Arg Ala Phe Gln Glu Gln Val Asp Lys Leu Gly Arg | | | | | | |
| | 145 | | | 150 | | 155 |
| Leu Gln Val Asp Ser Ala Glu Tyr Gly Cys Leu Lys Ala Ile Ala Leu | | | | | | |
| | 165 | | | 170 | | 175 |
| Phe Thr Pro Asp Ala Cys Gly Leu Ser Asp Pro Ala His Val Glu Ser | | | | | | |
| | 180 | | | 185 | | 190 |
| Leu Gln Glu Lys Ala Gln Val Ala Leu Thr Glu Tyr Val Arg Ala Gln | | | | | | |
| | 195 | | | 200 | | 205 |
| Tyr Pro Ser Gln Pro Gln Arg Phe Gly Arg Leu Leu Leu Arg Leu Pro | | | | | | |
| | 210 | | | 215 | | 220 |
| Ala Leu Arg Ala Val Pro Ala Ser Leu Ile Ser Gln Leu Phe Phe Met | | | | | | |
| | 225 | | | 230 | | 235 |
| Arg Leu Val Gly Lys Thr Pro Ile Glu Thr Leu Ile Arg Asp Met Leu | | | | | | |
| | 245 | | | 250 | | 255 |
| Leu Ser Gly Ser Thr Phe Asn Trp Pro Tyr Gly Ser Gly Gln | | | | | | |
| | 260 | | | 265 | | 270 |

<210> 1206

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1206

| |
|---|
| Met Phe His Cys Ser Asp Lys Tyr Phe Thr Phe Phe Ser Val His Gln |
| 1 5 10 15 |

| |
|---|
| Arg Glu Arg Asp Pro Pro Thr Ala Val Thr Ser Lys Cys Ser Cys Ser |
| 20 25 30 |

1230

Ile Asn Gly Val Thr Asp Thr Glu Val His Ser Trp Phe Leu Ser Arg
 35 40 45

Val Val Ile Leu Val Ser Trp Ser Leu Gly His Trp Gly Cys Thr Leu
 50 55 60

Lys Ser Pro Asn Arg Leu Ala Ile Lys Ile Asn Lys Ala Ala Ala Pro
 65 70 75 80

Phe Gln Phe Thr Phe His Leu Thr Gln
 85

<210> 1207

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1207

Cys Val Gly Lys Ala Gly Val Glu Leu Gly Cys Ser Gly Glu Gly Val
 1 5 10 15

Val Lys Lys Ala Ser Ser Arg Gly His Lys Ala Arg Phe Pro Leu Arg
 20 25 30

Ser His Lys Val Leu Ser Pro Ala Pro Gly Ala Gly Gly Val His Gly
 35 40 45

Pro Gly Phe Thr Ser Thr His Pro Ala His Pro Arg Gly Glu Gly Pro
 50 55 60

Arg Ala Pro Gly Pro Ala Ala Asp Arg Ile Leu Cys Lys Leu Cys Ser
 65 70 75 80

Val His Cys Lys Thr Pro Ala Gln Leu Ala Gly His Met Gln Thr His
 85 90 95

Leu Gly Gly Ala Ala Pro Leu Ser Arg Glu Thr Pro Pro Ser His Ser
 100 105 110

Pro Pro Ala Glu Gly Asp Pro Arg Thr His Gln Val Leu Val Arg Phe
 115 120 125

Val Gln Trp Arg Arg Gln Arg Gln Xaa Arg Gln Arg Gln Gln Arg Gln

1231

130

135

140

Gln
145

<210> 1208

<211> 378

<212> PRT

<213> Homo sapiens

<400> 1208

Ser Ala Ser Arg Ala Thr Ala Met Ser Ser Arg Gly Gly Lys Lys Lys
1 5 10 15

Ser Thr Lys Thr Ser Arg Ser Ala Lys Ala Gly Val Ile Phe Pro Val
20 25 30

Gly Arg Met Leu Arg Tyr Ile Lys Lys Gly His Pro Lys Tyr Arg Ile
35 40 45

Gly Val Gly Ala Pro Val Tyr Met Ala Ala Val Leu Glu Tyr Leu Thr
50 55 60

Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys
65 70 75 80

Gly Arg Val Thr Pro Arg His Ile Leu Leu Ala Val Ala Asn Asp Glu
85 90 95

Glu Leu Asn Gln Leu Leu Lys Gly Val Thr Ile Ala Ser Gly Gly Val
100 105 110

Leu Pro Asn Ile His Pro Glu Leu Leu Ala Lys Lys Arg Gly Ser Lys
115 120 125

Gly Lys Leu Glu Ala Ile Ile Thr Pro Pro Pro Ala Lys Lys Ala Lys
130 135 140

Ser Pro Ser Gln Lys Lys Pro Val Ser Lys Lys Ala Gly Gly Lys Lys
145 150 155 160

Gly Ala Arg Lys Ser Lys Lys Gln Gly Glu Val Ser Lys Ala Ala Ser
165 170 175

Ala Asp Ser Thr Thr Glu Gly Thr Pro Ala Asp Gly Phe Thr Val Leu
180 185 190

Ser Thr Lys Ser Leu Phe Leu Gly Gln Lys Leu Asn Leu Ile His Ser
195 200 205

1232

Glu Ile Ser Asn Leu Ala Gly Phe Glu Val Glu Ala Ile Ile Asn Pro
210 215 220

Thr Asn Ala Asp Ile Asp Leu Lys Asp Asp Leu Gly Asn Thr Leu Glu
225 230 235 240

Lys Lys Gly Gly Lys Glu Phe Val Glu Ala Val Leu Glu Leu Arg Lys
245 250 255

Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser Ala Gly His
260 265 270

Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro Val Trp Gly
275 280 285

Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys Asn Cys Leu
290 295 300

Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe Pro Ser Ile
305 310 315 320

Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala Gln Leu Ile
325 330 335

Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser Ser Ile
340 345 350

Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile Gly Ile Tyr
355 360 365

Val Gln Glu Met Ala Lys Leu Asp Ala Asn
370 375

<210> 1209

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

1233

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1209

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Gly | Lys | Ile | Xaa | Asp | Thr | Phe | Xaa | Arg | Tyr | Ala | Arg | Arg | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | His | Ala | Xaa | Ala | Pro | Gly | Ala | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Arg | Leu | Ser | Leu | Pro | Leu | Leu | Leu | Leu | Leu | Gly | Ala | Trp | Ala | Ile | |
| | | 35 | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gly | Leu | Gly | Asp | Arg | Ala | Pro | Leu | Thr | Ala | Thr | Ala | Pro | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Asp | Glu | Glu | Met | Tyr | Ser | Ala | His | Met | Pro | Ala | His | Leu | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asp | Ala | Cys | Arg | Ala | Val | Ala | Tyr | Gln | Met | Trp | Gln | Asn | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Glu | Thr | Lys | Leu | His | Thr | Ser | Asn | Ser | Gly | Gly | Arg | Arg | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Glu | Leu | Val | Tyr | Thr | Asp | Val | Leu | Asp | Arg | Ser | Cys | Ser | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Trp | Gln | Asp | Tyr | Gly | Val | Arg | Glu | Val | Asp | Gln | Val | Lys | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Pro | Gly | Leu | Ser | Glu | Gly | Pro | Glu | Pro | Ser | Ile | Ser | Val | Met |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Gly | Gly | Pro | Trp | Pro | Thr | Arg | Leu | Ser | Arg | Thr | Cys | Leu | His |
| | | | 165 | | | | | 170 | | | | | 175 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Gly | Glu | Phe | Gly | Glu | Asp | Gln | Ile | Tyr | Glu | Ala | His | Gln | Gln |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Gly | Ala | Leu | Glu | Ala | Leu | Leu | Cys | Gly | Gly | Pro | Gln | Gly | Ala |
| | 195 | | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Cys | Ser | Glu | Lys | Val | Ser | Ala | Thr | Arg | Glu | Glu | Leu | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | |

<210> 1210

<211> 231

<213> Homo sapiens

Ala Leu Ser Pro Ala Met Val Val Pro Glu Asp Gln Leu Thr Arg Trp
1 5 10 15

His Pro Arg Phe Asn Val Asp Glu Val Pro Asp Ile Glu Pro Ala Ala
20 25 30

Leu Pro Gln Pro Pro Ala Thr Glu Lys Leu Thr Thr Ala Gln Glu Val
35 40 45

Leu Ala Arg Ala Arg Asn Leu Ile Ser Pro Arg Met Glu Lys Ala Leu
50 . 55 . 60

Ser Gln Leu Ala Leu Arg Ser Ala Ala Pro Ser Ser Pro Gly Ser Pro
65 70 75 80

Arg Pro Ala Leu Pro Ala Thr Pro Pro Ala Thr Pro Pro Ala Ala Ser
85 90 95

Pro Ser Ala Leu Lys Gly Val Ser Gln Asp Leu Leu Glu Arg Ile Arg
100 105 110

Ala Lys Glu Ala Gln Lys Gln Leu Ala Gln Met Thr Arg Cys Pro Glu
115 120 125

Gln Glu Gln Arg Leu Gln Arg Leu Glu Arg Leu Pro Glu Leu Ala Arg
130 135 140

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Arg | Ser | Val | Phe | Val | Ser | Glu | Arg | Lys | Pro | Ala | Leu | Ser | Met |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Glu Val Ala Cys Ala Arg Met Val Gly Ser Cys Cys Thr Ile Met Ser
165 170 175

Pro Gly Glu Met Glu Lys His Leu Leu Leu Leu Ser Glu Leu Leu Pro
180 185 190

Asp Trp Leu Ser Leu His Arg Ile Arg Thr Asp Thr Tyr Val Lys Leu
195 200 205

Asp Lys Ala Ala Asp Leu Ala His Ile Thr Ala Arg Leu Ala His Gln
210 215 220

Thr Arg Ala Glu Glu Gly Leu
225 230

1235

<210> 1211

<211> 346

<212> PRT

<213> Homo sapiens

<400> 1211

```

Asn Cys Thr Thr Ile Ser Leu Val Tyr Leu His Phe Val Phe Tyr Asn
 1             5             10             15

Ser Tyr Ser Leu Phe Pro Ser Lys Glu Asn Cys Val Tyr Glu Thr Val
          20             25             30

Val Leu Pro Leu Asp Glu Arg Ala Phe Glu Lys Thr Leu Thr Pro Ile
          35             40             45

Ile Gln Glu Tyr Phe Glu His Gly Asp Thr Asn Glu Val Ala Glu Met
          50             55             60

Leu Arg Asp Leu Asn Leu Gly Glu Met Lys Ser Gly Val Pro Val Leu
          65             70             75             80

Ala Val Ser Leu Ala Leu Glu Gly Lys Ala Ser His Arg Glu Met Thr
          85             90             95

Ser Lys Leu Leu Ser Asp Leu Cys Gly Thr Val Met Ser Thr Thr Asp
          100             105             110

Val Glu Lys Ser Phe Asp Lys Leu Leu Lys Asp Leu Pro Glu Leu Ala
          115             120             125

Leu Asp Thr Pro Arg Ala Pro Gln Leu Val Gly Gln Phe Ile Ala Arg
          130             135             140

Ala Val Gly Asp Gly Ile Leu Cys Asn Thr Tyr Ile Asp Ser Tyr Lys
          145             150             155             160

Gly Thr Val Asp Cys Val Gln Ala Arg Ala Ala Leu Asp Lys Ala Thr
          165             170             175

Val Leu Leu Ser Met Ser Lys Gly Gly Lys Arg Lys Asp Ser Val Trp
          180             185             190

Gly Ser Gly Gly Gly Gln Gln Ser Val Asn His Leu Val Lys Glu Ile
          195             200             205

Asp Met Leu Leu Lys Glu Tyr Leu Leu Ser Gly Asp Ile Ser Glu Ala
          210             215             220

Glu His Cys Leu Lys Glu Leu Glu Val Pro His Phe His His Glu Leu
          225             230             235             240

```


1237

Phe Ser Met Ile Met Asp Cys Lys Gly Asn Leu Tyr Ser Phe Gly Cys
65 70 75 80

Pro Glu Tyr Gly Gln Leu Gly His Asn Ser Asp Gly Lys Phe Ile Ala
85 90 95

Arg Ala Gln Arg Ile Glu Tyr Asp Cys Glu Leu Val Pro Arg Arg Val
100 105 110

Ala Ile Phe Ile Glu Lys Thr Lys Asp Gly Gln Ile Leu Pro Val Pro
115 120 125

Asn Val Val Val Arg Asp Val Ala Cys Gly Ala Asn His Thr Leu Val
130 135 140

Leu Asp Ser Gln Lys Arg Val Phe Ser Trp Gly Phe Gly Gly Tyr Gly
145 150 155 160

Arg Leu Gly Thr Gln Ser Arg Arg Met Arg Trp Ser Pro Ala Trp
165 170 175

<210> 1213

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1213

Cys Phe Ile Cys Val Trp Cys Lys Arg Lys Leu Asp Gln Ile Asn Leu
1 5 10 15

Gln Leu Met Ser Pro Asn Ala Asn Thr Gly Thr His Met His Thr Pro
20 25 30

Ile Asn Thr His Thr Val His Leu Xaa Lys Gly Gln Val Ile Ser His
35 40 45

Pro Asn Phe Thr Ser Thr Asp Pro Leu Ala Pro Thr Pro Ala Ser Thr
50 55 60

Val Thr Ser Lys Ala Arg Ala Thr Cys Ala His Gln Thr Cys Ile Lys
65 70 75 80

Gln Leu Ala Gly Asp Gly Cys Gly Ala Gly Gly Leu Ser Asp Gly Ser

1238

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Leu | Leu | Leu | Pro | Leu | Leu | Arg | Val | Lys | Leu | Leu | Ser | Phe | Leu | Arg | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Leu | Cys | Gln | Val | Cys | Ala | Phe | Asn | Cys | Phe | Tyr | Phe | Val | Phe | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 1214

<211> 146

<212> PRT

<213> Homo sapiens

<400> 1214

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Trp | Asn | Arg | Cys | Ser | Ala | Ser | Pro | Ala | Gly | Trp | Gln | Asn | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Leu | Gly | His | Leu | Asn | Pro | Ser | Ser | Leu | Leu | Gln | Asn | Pro | Pro | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Arg | Ile | Gly | Met | Gly | Ala | Thr | Leu | Asp | Ile | Gln | Arg | Gln | Gln | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Glu | Leu | Leu | Asp | Arg | Gln | Leu | Met | Phe | Ser | Gln | Phe | Ala | Gln | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Arg | Gln | Arg | Gln | Gln | Gln | Gly | Gly | Met | Ile | Asn | Trp | Asn | Arg | Leu |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Pro | Pro | Leu | Arg | Gln | Arg | Gln | Asn | Val | Asn | Tyr | Gln | Gly | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Ser | Glu | Pro | Ala | Ala | Pro | Pro | Leu | Glu | Val | Ser | Glu | Glu | Gln | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Arg | Leu | Met | Glu | Met | Gly | Phe | Ser | Arg | Gly | Asp | Ala | Leu | Glu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Arg | Ala | Ser | Asn | Asn | Asp | Leu | Asn | Val | Ala | Thr | Asn | Phe | Leu | Leu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Gln | His | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 1215

<211> 116

<212> PRT

1239

<213> Homo sapiens

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1215

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Asn | His | Gln | Lys | Thr | His | Thr | Ser | Glu | Lys | Ser | Tyr | Lys | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Cys | Arg | Lys | Ala | Phe | Ser | Tyr | Cys | Ser | Gly | Leu | Ile | Gln | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Val | Ile | His | Thr | Ile | Glu | Lys | Pro | Tyr | Glu | Tyr | Gly | Lys | Cys | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Phe | Arg | Gln | Arg | Thr | Asp | Leu | Lys | Lys | His | Gln | Lys | Met | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Glu | Lys | Pro | Tyr | Glu | Cys | Asn | Glu | Cys | Gly | Lys | Ala | Phe | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Thr | Tyr | Leu | Thr | Lys | His | Gln | Lys | Ile | His | Ser | Glu | Glu | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ile | His | Thr | Glu | Cys | Gly | Glu | Thr | Xaa | Xaa | Gln | Asn | Ser | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | |
|-----|-----|-----|-----|
| Phe | Leu | Gln | Gln |
| | | | 115 |

<210> 1216

<211> 201

<212> PRT

<213> Homo sapiens

<400> 1216

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Gly | Gly | Glu | Gly | Phe | Gly | Ser | Leu | His | Ala | Ser | Leu | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Gly | Val | Val | Ala | Gly | Cys | Ala | Arg | His | Phe | Arg | Ala | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

1240

Asn Gly Val Ala Asn Gly Leu Gln Ser Asn Met Pro Lys Phe Tyr Cys
 35 40 45
 Asp Tyr Cys Asp Thr Tyr Leu Thr His Asp Ser Pro Ser Val Arg Lys
 50 55 60
 Thr His Cys Ser Gly Arg Lys His Lys Glu Asn Val Lys Asp Tyr Tyr
 65 70 75 80
 Gln Lys Trp Met Glu Glu Gln Ala Gln Ser Leu Ile Asp Lys Thr Thr
 85 90 95
 Ala Ala Phe Gln Gln Gly Lys Ile Pro Pro Thr Pro Phe Ser Ala Pro
 100 105 110
 Pro Pro Ala Gly Ala Met Ile Pro Pro Pro Pro Ser Leu Pro Gly Pro
 115 120 125
 Pro Arg Pro Gly Met Met Pro Ala Pro His Met Gly Gly Pro Pro Met
 130 135 140
 Met Pro Met Met Gly Pro Pro Pro Pro Gly Met Met Pro Val Gly Pro
 145 150 155 160
 Ala Pro Gly Met Arg Pro Pro Met Gly Gly His Met Pro Met Met Pro
 165 170 175
 Gly Pro Pro Met Met Arg Pro Pro Ala Arg Pro Met Met Val Pro Thr
 180 185 190
 Arg Pro Gly Met Thr Arg Pro Asp Arg
 195 200

<210> 1217

<211> 473

<212> PRT

<213> Homo sapiens

<400> 1217

Lys Phe Thr Met Lys Phe Leu Leu Ile Leu Leu Leu Gln Ala Thr Ala
 1 5 10 15
 Ser Gly Ala Leu Pro Leu Asn Ser Ser Thr Ser Leu Glu Lys Asn Asn
 20 25 30
 Val Leu Phe Gly Glu Arg Tyr Leu Glu Lys Phe Tyr Gly Leu Glu Ile
 35 40 45
 Asn Lys Leu Pro Val Thr Lys Met Lys Tyr Ser Gly Asn Leu Met Lys

1241

| 50 | | | | | 55 | | | | | 60 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Ile | Gln | Glu | Met | Gln | His | Phe | Leu | Gly | Leu | Lys | Val | Thr | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Leu | Asp | Thr | Ser | Thr | Leu | Glu | Met | Met | His | Ala | Pro | Arg | Cys | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Pro | Asp | Val | His | His | Phe | Arg | Glu | Met | Pro | Gly | Gly | Pro | Val | Trp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Lys | His | Tyr | Ile | Thr | Tyr | Arg | Ile | Asn | Asn | Tyr | Thr | Pro | Asp | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Arg | Glu | Asp | Val | Asp | Tyr | Ala | Ile | Arg | Lys | Ala | Phe | Gln | Val | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Asn | Val | Thr | Pro | Leu | Lys | Phe | Ser | Lys | Ile | Asn | Thr | Gly | Met | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Asp | Ile | Leu | Val | Val | Phe | Ala | Arg | Gly | Ala | His | Gly | Asp | Phe | His | Ala |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Phe | Asp | Gly | Lys | Gly | Gly | Ile | Leu | Ala | His | Ala | Phe | Gly | Pro | Gly | Ser |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Gly | Ile | Gly | Gly | Asp | Ala | His | Phe | Asp | Glu | Asp | Glu | Phe | Trp | Thr | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| His | Ser | Gly | Gly | Thr | Asn | Leu | Phe | Leu | Thr | Ala | Val | His | Glu | Ile | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| His | Ser | Leu | Gly | Leu | Gly | His | Ser | Ser | Asp | Pro | Lys | Ala | Val | Met | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Pro | Thr | Tyr | Lys | Tyr | Val | Asp | Ile | Asn | Thr | Phe | Arg | Leu | Ser | Ala | Asp |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Asp | Ile | Arg | Gly | Ile | Gln | Ser | Leu | Tyr | Gly | Asp | Pro | Lys | Glu | Asn | Gln |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Arg | Leu | Pro | Asn | Pro | Asp | Asn | Ser | Glu | Pro | Ala | Leu | Cys | Asp | Pro | Asn |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Leu | Ser | Phe | Asp | Ala | Val | Thr | Thr | Val | Gly | Asn | Lys | Ile | Phe | Phe | Phe |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Asp | Arg | Phe | Phe | Trp | Leu | Lys | Val | Ser | Glu | Arg | Pro | Lys | Thr | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Val | Asn | Leu | Ile | Ser | Ser | Leu | Trp | Pro | Thr | Leu | Pro | Ser | Gly | Ile | Glu |

1242

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 325 | | | | | | 330 | | | | | 335 |
| Ala | Ala | Tyr | Glu | Ile | Glu | Ala | Arg | Asn | Gln | Val | Phe | Leu | Phe | Lys | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Lys | Tyr | Trp | Leu | Ile | Ser | Asn | Leu | Arg | Pro | Glu | Pro | Asn | Tyr | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Ser | Ile | His | Ser | Phe | Gly | Phe | Pro | Asn | Phe | Val | Lys | Lys | Ile | Asp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Ala | Val | Phe | Asn | Pro | Arg | Phe | Tyr | Arg | Thr | Tyr | Phe | Phe | Val | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asn | Gln | Tyr | Trp | Arg | Tyr | Asp | Glu | Arg | Arg | Gln | Met | Met | Asp | Pro | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Pro | Lys | Leu | Ile | Thr | Lys | Asn | Phe | Gln | Gly | Ile | Gly | Pro | Lys | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Ala | Val | Phe | Tyr | Ser | Lys | Asn | Lys | Tyr | Tyr | Tyr | Phe | Phe | Gln | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ser | Asn | Gln | Phe | Glu | Tyr | Asp | Phe | Leu | Leu | Gln | Arg | Ile | Thr | Lys | Thr |
| | | 450 | | | | | 455 | | | | 460 | | | | |
| Leu | Lys | Ser | Asn | Ser | Trp | Phe | Gly | Cys | | | | | | | |
| 465 | | | | | 470 | | | | | | | | | | |

<210> 1218

<211> 598

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1218

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Ser | Arg | Gln | Pro | Ser | Tyr | Xaa | Arg | Thr | Trp | Cys | Arg | Arg | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly

1243

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Gln | Leu | Ala | Leu | Phe | Ser | Val | Ser | Asp | Lys | Thr | Gly | Leu | Val | Glu | Phe |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ala | Arg | Asn | Leu | Thr | Ala | Leu | Gly | Leu | Asn | Leu | Val | Ala | Ser | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Ala | Lys | Ala | Leu | Arg | Asp | Ala | Gly | Leu | Ala | Val | Arg | Asp | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Leu | Thr | Gly | Phe | Pro | Glu | Met | Leu | Gly | Gly | Arg | Val | Lys | Thr | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| His | Pro | Ala | Val | His | Ala | Gly | Ile | Leu | Ala | Arg | Asn | Ile | Pro | Glu | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Ala | Asp | Met | Ala | Arg | Leu | Asp | Phe | Asn | Leu | Ile | Arg | Val | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Cys | Asn | Leu | Tyr | Pro | Phe | Val | Lys | Thr | Val | Ala | Ser | Pro | Gly | Val | Xaa |
| | 130 | | | | | | 135 | | | | 140 | | | | |
| Val | Glu | Glu | Ala | Val | Glu | Gln | Ile | Asp | Ile | Gly | Gly | Val | Thr | Leu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Ala | Ala | Ala | Lys | Asn | His | Ala | Arg | Val | Thr | Val | Val | Cys | Glu | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Asp | Tyr | Val | Val | Val | Ser | Thr | Glu | Met | Gln | Ser | Ser | Glu | Ser | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Thr | Ser | Leu | Glu | Thr | Arg | Arg | Gln | Leu | Ala | Leu | Lys | Ala | Phe | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| His | Thr | Ala | Gln | Tyr | Asp | Glu | Ala | Ile | Ser | Asp | Tyr | Phe | Arg | Lys | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | Ser | Lys | Gly | Val | Ser | Gln | Met | Pro | Leu | Arg | Tyr | Gly | Met | Asn | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| His | Gln | Thr | Pro | Ala | Gln | Leu | Tyr | Thr | Leu | Gln | Pro | Lys | Leu | Pro | Ile |
| | | | 245 | | | | | | 250 | | | | 255 | | |
| Thr | Val | Leu | Asn | Gly | Ala | Pro | Gly | Phe | Ile | Asn | Leu | Cys | Asp | Ala | Leu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Asn | Ala | Trp | Gln | Leu | Val | Lys | Glu | Leu | Lys | Glu | Ala | Leu | Gly | Ile | Pro |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ala | Ala | Ala | Ser | Phe | Lys | His | Val | Ser | Pro | Ala | Gly | Ala | Ala | Val | Gly |

1244

| 290 | 295 | 300 |
|--|-----|-----|
| Ile Pro Leu Ser Glu Asp Glu Ala Lys Val Cys Met Val Tyr Asp Leu 305 310 315 320 | | |
| Tyr Lys Thr Leu Thr Pro Ile Ser Ala Ala Tyr Ala Arg Ala Arg Gly 325 330 335 | | |
| Ala Asp Arg Met Ser Ser Phe Gly Asp Phe Val Ala Leu Ser Asp Val 340 345 350 | | |
| Cys Asp Val Pro Thr Ala Lys Ile Ile Ser Arg Glu Val Ser Asp Gly 355 360 365 | | |
| Ile Ile Ala Pro Gly Tyr Glu Glu Glu Ala Leu Thr Ile Leu Ser Lys 370 375 380 | | |
| Lys Lys Asn Gly Asn Tyr Cys Val Leu Gln Met Asp Gln Ser Tyr Lys 385 390 395 400 | | |
| Pro Asp Glu Asn Glu Val Arg Thr Leu Phe Gly Leu His Leu Ser Gln 405 410 415 | | |
| Lys Arg Asn Asn Gly Val Val Asp Lys Ser Leu Phe Ser Asn Val Val 420 425 430 | | |
| Thr Lys Asn Lys Asp Leu Pro Glu Ser Ala Leu Arg Asp Leu Ile Val 435 440 445 | | |
| Ala Thr Ile Ala Val Lys Tyr Thr Gln Ser Asn Ser Val Cys Tyr Ala 450 455 460 | | |
| Lys Asn Gly Gln Val Ile Gly Ile Gly Ala Gly Gln Gln Ser Arg Ile 465 470 475 480 | | |
| His Cys Thr Arg Leu Ala Gly Asp Lys Ala Asn Tyr Trp Trp Leu Arg 485 490 495 | | |
| His His Pro Gln Val Leu Ser Met Lys Phe Lys Thr Gly Val Lys Arg 500 505 510 | | |
| Ala Glu Ile Ser Asn Ala Ile Asp Gln Tyr Val Thr Gly Thr Ile Gly 515 520 525 | | |
| Glu Asp Glu Asp Leu Ile Lys Trp Lys Ala Leu Phe Glu Glu Val Pro 530 535 540 | | |
| Glu Leu Leu Thr Glu Ala Glu Lys Lys Glu Trp Val Glu Lys Leu Thr 545 550 555 560 | | |
| Glu Val Ser Ile Ser Ser Asp Ala Phe Phe Pro Phe Arg Asp Asn Val | | |

1245

| | | |
|---|---------------------------------|---------|
| 565 | 570 | 575 |
| Asp Arg Ala Lys Arg Ser Gly Val | Ala Tyr Ile Ala Ala Pro Pro Val | |
| 580 | 585 | 590 |
| Leu Leu Leu Thr Lys Leu | | |
| 595 | | |
| <210> 1219 | | |
| <211> 209 | | |
| <212> PRT | | |
| <213> Homo sapiens | | |
| <400> 1219 | | |
| Tyr Thr Ala Ile Met Ser Ile Met Ser Tyr Asn Gly Gly Ala Val Met | | |
| 1 | 5 | 10 15 |
| Ala Met Lys Gly Lys Asn Cys Val Ala Ile Ala Ala Asp Arg Arg Phe | | |
| 20 | 25 | 30 |
| Gly Ile Gln Ala Gln Met Val Thr Thr Asp Phe Gln Lys Ile Phe Pro | | |
| 35 | 40 | 45 |
| Met Gly Asp Arg Leu Tyr Ile Gly Leu Ala Gly Leu Ala Thr Asp Val | | |
| 50 | 55 | 60 |
| Gln Thr Val Ala Gln Arg Leu Lys Phe Arg Leu Asn Leu Tyr Glu Leu | | |
| 65 | 70 | 75 80 |
| Lys Glu Gly Arg Gln Ile Lys Pro Tyr Thr Leu Met Ser Met Val Ala | | |
| 85 | 90 | 95 |
| Asn Leu Leu Tyr Glu Lys Arg Phe Gly Pro Tyr Tyr Thr Glu Pro Val | | |
| 100 | 105 | 110 |
| Ile Ala Gly Leu Asp Pro Lys Thr Phe Lys Pro Phe Ile Cys Ser Leu | | |
| 115 | 120 | 125 |
| Asp Leu Ile Gly Cys Pro Met Val Thr Asp Asp Phe Val Val Ser Gly | | |
| 130 | 135 | 140 |
| Thr Cys Ala Glu Gln Met Tyr Gly Met Cys Glu Ser Leu Trp Glu Pro | | |
| 145 | 150 | 155 160 |
| Asn Met Asp Pro Asp His Leu Phe Glu Thr Ile Ser Gln Ala Met Leu | | |
| 165 | 170 | 175 |
| Asn Ala Val Asp Arg Asp Ala Val Ser Gly Met Gly Val Ile Val His | | |
| 180 | 185 | 190 |

1246

Ile Ile Glu Lys Asp Lys Ile Thr Thr Arg Thr Leu Lys Ala Arg Met
 195 200 205

Asp

<210> 1220

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1220

Ile Ile Ser Ile Ile Ser Thr Ser Asn Lys Ile Lys Met Ser Glu Ala
 1 5 10 15

Pro Arg Phe Phe Val Gly Pro Glu Asp Thr Glu Ile Asn Pro Gly Asn
 20 25 30

Tyr Arg His Phe Phe His His Ala Asp Glu Asp Asp Glu Glu Glu Asp
 35 40 45

Asp Ser Xaa Pro Glu Arg Gln Ile Val Val Gly Ile Cys Ser Met Xaa
 50 55 60

Lys Lys Ser Lys Ser Lys Pro Met Lys Glu Ile Leu Xaa Arg Ile Ser
 65 70 75 80

Leu Phe Lys Tyr Ile Thr Val Val Val Phe Glu Glu Glu Val Ile Leu
 85 90 95

Asn Glu Pro Val Glu Asn Trp Pro Leu Cys Asp Cys Leu Ile Ser Phe
 100 105 110

1247

His Ser Lys Gly Phe Pro Leu Asp Lys Ala Val Ala Tyr Ala Lys Leu
 115 120 125

Arg Asn Pro Phe Val Ile Asn Asp Leu Asn Met Gln
 130 135 140

<210> 1221

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1221

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met
 1 5 10 15

Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile
 20 25 30

Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val
 35 40 45

<210> 1222

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1222

Val Ala Tyr Ile Cys Tyr Ser Lys Phe Cys Lys Tyr Ala Asn Gln Leu
 1 5 10 15

Tyr Arg Phe Ile Thr Ser Phe Leu Gly Phe Phe Trp Gly Arg Val Ile
 20 25 30

Ile Leu Leu Lys Ile Thr Met Asn Thr Leu Thr Val Arg Ile Cys Gly
 35 40 45

Lys Val Pro Leu Asn Ile Thr Lys Ile Ile Ser Leu Glu Gly Arg Asn
 50 55 60

Asn His Ser Asn Glu Leu
 65 70

<210> 1223

<211> 88

<212> PRT

1248

<213> Homo sapiens

<400> 1223

```

Phe Tyr Pro Ser Thr Tyr Leu Lys Ala Pro Ser Ser Leu Val Cys Gly
 1             5             10             15

Val Leu Glu Pro Val Ser Ser Phe Trp Arg Phe Lys Leu Asn Ser Asn
      20             25             30

Asn Tyr Val Thr Gln Ser Met Trp Arg Lys Ser Glu Thr Ser His Gly
      35             40             45

Asp Ala Gly Pro Arg Ala Arg Pro Ala Val Trp Pro Ala Leu Leu Thr
      50             55             60

Ser Val Ser Arg Ser Phe Pro Ser His Glu Val Pro Ser Gly His Gly
      65             70             75             80

Asp Glu Gly Arg Glu Gly Thr Gly
      85

```

<210> 1224

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (279)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1224

```

Ala Thr Arg Arg Arg Ala Ala Glu Ala Gly Met Ala Ala Val Leu Gln
 1             5             10             15

Arg Val Glu Arg Leu Ser Asn Arg Val Val Arg Val Leu Gly Cys Asn
      20             25             30

Pro Gly Pro Met Thr Leu Gln Gly Thr Asn Thr Tyr Leu Val Gly Thr
      35             40             45

Gly Pro Arg Arg Ile Leu Ile Asp Thr Gly Glu Pro Ala Ile Pro Glu
      50             55             60

Tyr Ile Ser Cys Leu Lys Gln Ala Leu Thr Glu Phe Asn Thr Ala Ile
      65             70             75             80

Gln Glu Ile Val Val Thr His Trp His Arg Asp His Ser Gly Gly Ile
      85             90             95

```

1249

Gly Asp Ile Cys Lys Ser Ile Asn Asn Asp Thr Thr Tyr Cys Ile Lys
 100 105 110

Lys Leu Pro Arg Asn Pro Gln Arg Glu Glu Ile Ile Gly Asn Gly Glu
 115 120 125

Gln Gln Tyr Val Tyr Leu Lys Asp Gly Asp Val Ile Lys Thr Glu Gly
 130 135 140

Ala Thr Leu Arg Val Leu Tyr Thr Pro Gly His Thr Asp Asp His Met
 145 150 155 160

Ala Leu Leu Leu Glu Glu Asn Ala Ile Phe Ser Gly Asp Cys Ile
 165 170 175

Leu Gly Glu Gly Thr Thr Val Phe Glu Asp Leu Tyr Asp Tyr Met Asn
 180 185 190

Ser Leu Lys Glu Leu Leu Lys Ile Lys Ala Asp Ile Ile Tyr Pro Gly
 195 200 205

His Gly Pro Val Ile His Asn Ala Glu Ala Lys Ile Gln Gln Tyr Ile
 210 215 220

Ser His Arg Asn Ile Arg Glu Gln Gln Ile Leu Thr Leu Phe Arg Glu
 225 230 235 240

Asn Phe Glu Lys Ser Phe Thr Val Met Glu Leu Val Lys Ile Ile Tyr
 245 250 255

Lys Asn Thr Pro Glu Asn Leu His Glu Met Ala Lys His Asn Leu Leu
 260 265 270

Leu His Leu Lys Lys Leu Xaa Lys Glu Gly Lys Ile Phe Ser Asn Thr
 275 280 285

Asp Pro Asp Lys Lys Trp Lys Ala His Leu
 290 295

<210> 1225

<211> 27

<212> PRT

<213> Homo sapiens

<400> 1225

Val Ser Gly Asp Tyr Gly His Pro Val Tyr Ile Val Gln Asp Gly Pro
 1 5 10 15

1250

Pro Gln Ser Pro Pro Asn Ile Tyr Tyr Lys Val
 20 25

<210> 1226

<211> 380

<212> PRT

<213> Homo sapiens

<400> 1226

Glu Gln Glu Leu Asp Thr Leu Lys Arg Lys Ser Pro Ser Asp Leu Trp
 1 5 10 15

Lys Glu Asp Leu Ala Thr Phe Ile Glu Glu Leu Glu Ala Val Glu Ala
 20 25 30

Lys Glu Lys Gln Asp Glu Gln Val Gly Leu Pro Gly Lys Val Gly Lys
 35 40 45

Ala Lys Gly Lys Lys Thr Gln Met Ala Glu Val Leu Pro Ser Pro Arg
 50 55 60

Gly Gln Arg Val Ile Pro Arg Ile Thr Ile Glu Met Lys Ala Glu Ala
 65 70 75 80

Glu Lys Lys Asn Lys Lys Lys Ile Lys Asn Glu Asn Thr Glu Gly Ser
 85 90 95

Pro Gln Glu Asp Gly Val Glu Leu Glu Gly Leu Lys Gln Arg Leu Glu
 100 105 110

Lys Lys Gln Lys Arg Glu Pro Gly Thr Lys Thr Lys Lys Gln Thr Thr
 115 120 125

Leu Ala Phe Lys Pro Ile Lys Lys Gly Lys Lys Arg Asn Pro Trp Ser
 130 135 140

Asp Ser Glu Ser Asp Arg Ser Ser Asp Glu Ser Asn Phe Asp Val Pro
 145 150 155 160

Pro Arg Glu Thr Glu Pro Arg Arg Ala Ala Thr Lys Thr Lys Phe Thr
 165 170 175

Met Asp Leu Asp Ser Asp Glu Asp Phe Ser Asp Phe Asp Glu Lys Thr
 180 185 190

Asp Asp Glu Asp Phe Val Pro Ser Asp Ala Ser Pro Pro Lys Thr Lys
 195 200 205

Thr Ser Pro Lys Leu Ser Asn Lys Glu Leu Lys Pro Gln Lys Ser Val

1251

```

      210              215              220
Val Ser Asp Leu Glu Ala Asp Asp Val Lys Gly Ser Val Pro Leu Ser
225              230              235              240
Ser Ser Pro Pro Ala Thr His Phe Pro Asp Glu Thr Glu Ile Thr Asn
      245              250              255
Pro Val Pro Lys Lys Asn Val Thr Val Lys Lys Thr Ala Ala Lys Ser
      260              265              270
Gln Ser Ser Thr Ser Thr Thr Gly Ala Lys Lys Arg Ala Ala Pro Lys
      275              280              285
Gly Thr Lys Arg Asp Pro Ala Leu Asn Ser Gly Val Ser Gln Lys Pro
      290              295              300
Asp Pro Ala Lys Thr Lys Asn Arg Arg Lys Arg Lys Pro Ser Thr Ser
305              310              315              320
Asp Asp Ser Asp Ser Asn Phe Glu Lys Ile Val Ser Lys Ala Val Thr
      325              330              335
Ser Lys Lys Ser Lys Gly Glu Ser Asp Asp Phe His Met Asp Phe Asp
      340              345              350
Ser Ala Val Ala Pro Arg Ala Lys Ser Val Arg Ala Lys Lys Pro Ile
      355              360              365
Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe
      370              375              380

```

<210> 1227

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1227

```

Phe Asn Ser Leu Lys Cys Leu Phe Gly Ile Met Ile Gly Asn Leu Asp
  1              5              10              15

```

```

Glu Phe Arg Gly Lys Lys Leu Ser Ala Xaa Met Leu Arg Ala His Leu
      20              25              30

```

1252

Ser Pro His Thr Pro Thr Glu Leu Thr Gly Leu Gln Cys Phe Ile Arg
 35 40 45

Lys Phe Pro Ile Pro Leu Ser Cys Val Phe Met Leu Lys Ile Leu Leu
 50 55 60

His Phe Ser Phe Glu Cys Gln Phe Leu Thr Ser Thr Ile Ser
 65 70 75

<210> 1228

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1228

Ala Asn Glu Lys Val Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser
 1 5 10 15

Ile His Gly Arg Pro Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro
 20 25 30

Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn
 35 40 45

Thr Ile Pro Ile Ile Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu
 50 55 60

Leu Gln Pro Ile Ile Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile
 65 70 75 80

Lys Glu Glu Glu Glu Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp
 85 90 95

Phe Met Val Thr Leu Lys Thr Asp Phe Ser Ala Arg Cys Phe Leu Asp
 100 105 110

Gln Phe Glu Asp Asp Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys
 115 120 125

Ile Pro Ser Lys Cys Ser Gln Asp Thr Gly Leu Ser Asn Xaa His Ala
 130 135 140

Ala Ser Ile Pro Glu Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu
 145 150 155 160

1253

Lys Lys Arg Ile Arg Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe
 165 170 175
 Arg Gln Asn Gly Arg Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala
 180 185 190
 Glu Glu Tyr Ser Glu Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu
 195 200 205
 Glu Val Leu Ile Ser Lys Arg Asp Thr Asp Ser Lys Ser Met
 210 215 220

<210> 1229
 <211> 220
 <212> PRT
 <213> Homo sapiens

<400> 1229
 Lys Gly Ser Thr Leu Gly His Leu Cys Thr Ala Met Ala Gly Met Met
 1 5 10 15
 Lys Gly Ile Arg Trp Ser Cys Pro Ala Ile Ala Ser Ile Ser Gln Thr
 20 25 30
 Arg Ser Ser Gln Glu Lys Asp Ser Ser Ser Pro Pro Trp Asp Leu Arg
 35 40 45
 Arg Ala Ala Thr Glu Gly Glu Ala Pro Asp Ala Leu Cys Gln Ser Gln
 50 55 60
 Val Arg Gly Gln Ser Ser Pro Cys His Pro Trp Cys Arg Pro Ala Pro
 65 70 75 80
 Ser Ser Phe Met Pro Gly Pro Ala Gly Thr Pro Ala Thr Thr Glu Ser
 85 90 95
 Thr Arg Ser Ala Leu Cys Ser Trp Arg Arg His Ser Arg Val Glu Ser
 100 105 110
 Cys Pro Ser Leu Ser Leu Gly His Leu Gly Gly Glu Ser Gly Leu Arg
 115 120 125
 Ser Glu Leu Asp Pro Gly Asp Leu Gly Ser Phe Phe Leu Ala His Gln
 130 135 140
 Pro Cys Arg Pro His Leu Ser Gln Asn Pro Leu Cys Leu Gly Gly Ser
 145 150 155 160

```

<400> 1230
Glu Leu Lys Arg Leu Thr Ile Gly Lys Asn Xaa Xaa Arg Leu Thr Gly
 1             5             10             15
Asn Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Glu Xaa Glu Val
      20             25             30
Glu Glu Glu Gly Asp Val Asp Ser Asp Glu Glu Glu Glu Glu Asp Glu
      35             40             45
Glu Ser Ser Ser Glu Gly Leu Glu Ala Glu Asp Trp Ala Gln Gly Val
      50             55             60

```

1255

Val Glu Ala Gly Gly Ser Phe Gly Ala Tyr Gly Ala Gln Glu Glu Ala
 65 70 75 80
 Gln Cys Pro Thr Leu His Phe Leu Glu Gly Gly Glu Asp Ser Asp Ser
 85 90 95
 Asp Ser Glu Glu Glu Asp Asp Glu Glu Glu Asp Asp Glu Asp Glu Asp
 100 105 110
 Asp Asp Asp Asp Glu Glu Asp Gly Asp Glu Val Pro Val Pro Ser Phe
 115 120 125
 Gly Glu Ala Met Ala Tyr Phe Ala Met Val Lys Arg Tyr Leu Thr Ser
 130 135 140
 Phe Pro Ile Asp Asp Arg Val Gln Ser His Ile Leu His Leu Glu His
 145 150 155 160
 Asp Leu Val His Val Thr Arg Lys Asn His Ala Arg Gln Ala Gly Val
 165 170 175
 Arg Gly Leu Gly His Gln Ser
 180

<210> 1231
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 1231
 Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile
 1 5 10 15
 Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val
 20 25 30
 Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn
 35 40 45
 Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu
 50 55

<210> 1232
 <211> 135
 <212> PRT
 <213> Homo sapiens

1256

<400> 1232

Gly Ser Thr His Ala Ser Gly Pro Pro Gln Ala Pro Gln Leu Ile Tyr
 1 5 10 15
 Gln Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro
 20 25 30
 Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu
 35 40 45
 Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val
 50 55 60
 Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln
 65 70 75 80
 Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala
 85 90 95
 Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala
 100 105 110
 Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr
 115 120 125
 Leu Gly Leu Asp Val Pro Val
 130 135

<210> 1233

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1233

Arg Gly Glu Thr Arg Glu Met Ala Gly Asn Leu Leu Ser Gly Ala Gly
 1 5 10 15
 Arg Arg Leu Trp Asp Trp Val Pro Leu Ala Cys Arg Ser Phe Ser Leu
 20 25 30
 Gly Val Pro Arg Leu Ile Gly Ile Arg Leu Thr Leu Pro Pro Pro Lys
 35 40 45
 Val Val Asp Arg Trp Asn Glu Lys Arg Ala Met Phe Gly Val Tyr Asp
 50 55 60
 Asn Ile Gly Ile Leu Gly Asn Phe Glu Lys His Pro Lys Glu Leu Ile
 65 70 75 80

Gly Thr Val Val Met Val Thr Gly Val Leu Gly Cys Cys Ala Thr Phe
100 105 110

Lys Glu Arg Arg Asn Leu Leu Arg Leu Tyr Phe Ile Leu Leu Leu Ile
115 120 125

Ile Phe Leu Leu Glu Ile Ile Ala Gly Ile Leu Ala Tyr Ala Tyr Tyr
130 135 140

Gln Gln Leu Asn Thr Glu Leu Lys Glu Asn Leu Lys Asp Thr Met Thr
145 150 155 160

Lys Arg Tyr His Gln Pro Gly His Glu Ala Val Thr Ser Ala Val Asp
165 170 175

Gln Leu Gln Gln Glu Phe His Cys Cys Gly Ser Asn Asn Ser Gln Asp
180 185 190

Trp Arg Asp Ser Glu Trp Ile Arg Ser Gln Glu Ala Gly Gly Arg Val
195 200 205

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | Asp | Ser | Cys | Cys | Lys | Thr | Val | Val | Ala | Leu | Cys | Gly | Gln | Arg |
| 210 | | | | | | 215 | | | | | 220 | | | | |

Asp His Ala Ser Asn Ile Tyr Lys Val Glu Gly Gly Cys Ile Thr Lys
225 230 235 240

Leu Glu Thr Phe Ile Gln Glu His Leu Arg Val Ile Gly Ala Val Gly
245 250 255

Ile Gly Ile Ala Cys Val Gln Val Phe Gly Met Ile Phe Thr Cys Cys
260 265 270

Leu Tyr Arg Ser Leu Lys Leu Glu His Tyr
275 280

<210> 1235

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1235

Ala Glu Ile Gln Val Phe Gln Val Gly Leu Val Ser Trp Gly Leu Tyr
1 5 10 15

Asn Pro Cys Leu Gly Ser Ala Asp Lys Asn Ser Arg Lys Arg Ala Pro
20 25 30

Arg Ser Lys Val Pro Pro Pro Arg Asp Phe His Ile Asn Leu Phe Arg
35 40 45

1259

Met Gln Pro Trp Leu Arg Gln His Leu Gly Asp Val Leu Asn Phe Leu
50 55 60

Pro Leu
65

<210> 1236
<211> 108
<212> PRT
<213> Homo sapiens

<400> 1236
Ala Arg Arg Arg Arg Gly Gly Trp Ala Gly Gly Gly Gly Gly Thr Arg
1 5 10 15

Arg Ala Leu Gly Val Pro Val Ala Arg Arg Arg Arg Met Trp Arg Ala
20 25 30

Glu Gly Lys Trp Leu Pro Lys Thr Ser Arg Lys Ser Val Ser Gln Ser
35 40 45

Val Phe Cys Gly Thr Ser Thr Tyr Cys Val Leu Asn Thr Val Pro Pro
50 55 60

Ile Glu Asp Asp His Gly Asn Ser Asn Ser Ser His Val Lys Ile Phe
65 70 75 80

Leu Pro Lys Lys Leu Leu Glu Cys Leu Pro Lys Cys Ser Ser Leu Pro
85 90 95

Lys Glu Arg His Arg Trp Asn Thr Asn Glu Arg Ser
100 105

<210> 1237
<211> 116
<212> PRT
<213> Homo sapiens

<400> 1237
Arg Gly Gly Gly Ser Lys Gly Asn Glu Val Arg Pro Val Ala Gly Ser
1 5 10 15

Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln
20 25 30

Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val
35 40 45

1260

Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr
 50 55 60
 Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro
 65 70 75 80
 Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr
 85 90 95
 Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys
 100 105 110
 Pro Leu Met Asn
 115

<210> 1238

<211> 311

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1238

Val Thr Ser Glu Gly Val Arg Val Arg Ser Ser Arg Gly Arg Ala Xaa
 1 5 10 15
 Gly Val Trp Arg Phe Glu Arg Asp Glu Asp Gly Thr Gly Ala Gly Cys
 20 25 30
 Gly Gln Trp Thr Arg Phe Cys Arg Glu Pro Lys Met Ala Val Asn Val
 35 40 45
 Tyr Ser Thr Ser Val Thr Ser Asp Asn Leu Ser Arg His Asp Met Leu
 50 55 60
 Ala Trp Ile Asn Glu Ser Leu Gln Leu Asn Leu Thr Lys Ile Glu Gln
 65 70 75 80
 Leu Cys Ser Gly Ala Ala Tyr Cys Gln Phe Met Asp Met Leu Phe Pro
 85 90 95
 Gly Ser Ile Ala Leu Lys Lys Val Lys Phe Gln Ala Lys Leu Glu His
 100 105 110
 Glu Tyr Ile Gln Asn Phe Lys Ile Leu Gln Ala Gly Phe Lys Arg Met

1261

| | | |
|---|-----|---------|
| 115 | 120 | 125 |
| Gly Val Asp Lys Ile Ile Pro Val Asp Lys Leu Val Lys Gly Lys Phe | | |
| 130 | 135 | 140 |
| Gln Asp Asn Phe Glu Phe Val Gln Trp Phe Lys Lys Phe Phe Asp Ala | | |
| 145 | 150 | 155 160 |
| Asn Tyr Asp Gly Lys Asp Tyr Asp Pro Val Ala Ala Arg Gln Gly Gln | | |
| 165 | 170 | 175 |
| Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro | | |
| 180 | 185 | 190 |
| Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser | | |
| 195 | 200 | 205 |
| Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg | | |
| 210 | 215 | 220 |
| Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met | | |
| 225 | 230 | 235 240 |
| Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu | | |
| 245 | 250 | 255 |
| Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln | | |
| 260 | 265 | 270 |
| Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile | | |
| 275 | 280 | 285 |
| Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro | | |
| 290 | 295 | 300 |
| Gln Glu Glu Gln Glu Glu Tyr | | |
| 305 | 310 | |

<210> 1239

<211> 345

<212> PRT

<213> Homo sapiens

<400> 1239

| |
|---|
| Ala Ala Arg Leu Ala Val Glu Met Lys Thr Asp Leu Leu Ile Val Leu |
| 1 5 10 15 |

| |
|---|
| Ser Asp Val Glu Gly Leu Phe Asp Ser Pro Pro Gly Ser Asp Asp Ala |
| 20 25 30 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Ile | Asp | Ile | Phe | Tyr | Pro | Gly | Asp | Gln | Gln | Ser | Val | Thr | Phe |
| 35 | | | | | | 40 | | | | | | 45 | | | |
| Gly | Thr | Lys | Ser | Arg | Val | Gly | Met | Gly | Gly | Met | Glu | Ala | Lys | Val | Lys |
| 50 | | | | | | 55 | | | | | | 60 | | | |
| Ala | Ala | Leu | Trp | Ala | Leu | Gln | Gly | Gly | Thr | Ser | Val | Val | Ile | Ala | Asn |
| 65 | | | | | | 70 | | | | | | 75 | | | |
| Gly | Thr | His | Pro | Lys | Val | Ser | Gly | His | Val | Ile | Thr | Asp | Ile | Val | Glu |
| | | | 85 | | | | | | 90 | | | | | | |
| Gly | Lys | Lys | Val | Gly | Thr | Phe | Phe | Ser | Glu | Val | Lys | Pro | Ala | Gly | Pro |
| | | | 100 | | | | | | 105 | | | 110 | | | |
| Thr | Val | Glu | Gln | Gln | Gly | Glu | Met | Ala | Arg | Ser | Gly | Gly | Arg | Met | Leu |
| 115 | | | | | | 120 | | | | | | 125 | | | |
| Ala | Thr | Leu | Glu | Pro | Glu | Gln | Arg | Ala | Glu | Ile | Ile | His | His | Leu | Ala |
| 130 | | | | | | 135 | | | | | | 140 | | | |
| Asp | Leu | Leu | Thr | Asp | Gln | Arg | Asp | Glu | Ile | Leu | Leu | Ala | Asn | Lys | Lys |
| 145 | | | | | | 150 | | | | | | 155 | | | |
| Asp | Leu | Glu | Glu | Ala | Glu | Gly | Arg | Leu | Ala | Ala | Pro | Leu | Leu | Lys | Arg |
| | | | 165 | | | | | | 170 | | | | | | |
| Leu | Ser | Leu | Ser | Thr | Ser | Lys | Leu | Asn | Ser | Leu | Ala | Ile | Gly | Leu | Arg |
| | | | 180 | | | | | | 185 | | | 190 | | | |
| Gln | Ile | Ala | Ala | Ser | Ser | Gln | Asp | Ser | Val | Gly | Arg | Val | Leu | Arg | Arg |
| 195 | | | | | | 200 | | | | | | 205 | | | |
| Thr | Arg | Ile | Ala | Lys | Asn | Leu | Glu | Leu | Glu | Gln | Val | Thr | Val | Pro | Ile |
| 210 | | | | | | 215 | | | | | | 220 | | | |
| Gly | Val | Leu | Leu | Val | Ile | Phe | Glu | Ser | Arg | Pro | Asp | Cys | Leu | Pro | Gln |
| 225 | | | | | | 230 | | | | | | 235 | | | |
| Val | Ala | Ala | Leu | Ala | Ile | Ala | Ser | Gly | Asn | Gly | Leu | Leu | Leu | Lys | Gly |
| | | | 245 | | | | | | 250 | | | | | | |
| Gly | Lys | Glu | Ala | Ala | His | Ser | Asn | Arg | Ile | Leu | His | Leu | Leu | Thr | Gln |
| | | | 260 | | | | | | 265 | | | 270 | | | |
| Glu | Ala | Leu | Ser | Ile | His | Gly | Val | Lys | Glu | Ala | Val | Gln | Leu | Val | Asn |
| 275 | | | | | | 280 | | | | | | 285 | | | |
| Thr | Arg | Glu | Glu | Val | Glu | Asp | Leu | Cys | Arg | Leu | Asp | Lys | Met | Ile | Asp |
| 290 | | | | | | 295 | | | | | | 300 | | | |

1263

Leu Ile Ile Pro Arg Gly Ser Ser Gln Leu Val Arg Asp Ile Gln Lys
305 310 315 320

Ala Ala Lys Gly Ile Pro Val Met Gly His Ser Glu Gly Ile Cys Ala
325 330 335

His Val Cys Gly Phe Arg Gly Gln Cys
340 345

<210> 1240

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1240

Gly Tyr Cys Phe Ile Ser Thr Ser Arg Thr Pro Lys Glu Thr Ile Trp
1 5 10 15

Val Lys Ala Thr Ser Thr Ala Leu Ala Leu His Arg Phe Leu Glu Phe
20 25 30

Leu Ser Phe Thr Phe Ser Leu Thr Gln His Cys Leu Leu Phe Val Phe
35 40 45

Val Ala Trp Phe Val Phe Phe Leu Pro Cys Ser Pro Asn Leu Cys Pro
50 55 60

Asn Ser Phe Gly Leu Met Gln Lys Tyr Leu Cys Gly Arg Glu Glu Leu
65 70 75 80

Phe Ser Trp Arg Ala Phe Arg
85

<210> 1241

<211> 196

<212> PRT

<213> Homo sapiens

<400> 1241

Arg Ala Gly Ser Pro Ala Ser Pro Ala His Val Ala Trp Pro Pro Ala
1 5 10 15

Pro Thr Trp Ser Arg Ala Leu Pro Arg Val Ala Pro Arg Ser Ser Ser
20 25 30

Arg Arg Gly Arg Arg Tyr Pro Glu Arg Ser Gln Arg Arg Arg Glu Val

1264

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Ala Ala Thr Ala Met Pro Lys Asn Lys Gly Lys Gly Gly Lys Asn Arg | | |
| 50 | 55 | 60 |
| Arg Arg Gly Lys Asn Glu Asn Glu Ser Glu Lys Arg Glu Leu Val Phe | | |
| 65 | 70 | 75 |
| Lys Glu Asp Gly Gln Glu Tyr Ala Gln Val Ile Lys Met Leu Gly Asn | | |
| | 85 | 90 |
| Gly Arg Leu Glu Ala Met Cys Phe Asp Gly Val Lys Arg Leu Cys His | | |
| 100 | 105 | 110 |
| Ile Arg Gly Lys Leu Arg Lys Lys Val Trp Ile Asn Thr Ser Asp Ile | | |
| 115 | 120 | 125 |
| Ile Leu Val Gly Leu Arg Asp Tyr Gln Asp Asn Lys Ala Asp Val Ile | | |
| 130 | 135 | 140 |
| Leu Lys Tyr Asn Ala Asp Glu Ala Arg Ser Leu Lys Ala Tyr Gly Glu | | |
| 145 | 150 | 155 |
| Leu Pro Glu His Ala Lys Ile Asn Glu Thr Asp Thr Phe Gly Pro Gly | | |
| | 165 | 170 |
| Asp Asp Asp Glu Ile Gln Phe Asp Asp Ile Gly Asp Asp Asp Glu Asp | | |
| 180 | 185 | 190 |
| Ile Asp Asp Ile | | |
| 195 | | |

<210> 1242

<211> 218

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1242

Ala Val Xaa Phe Lys Asp Xaa Ile Tyr Glu Ile Phe Gln Lys Leu Asn

1265

```

      1             5             10             15
Thr Ser Ile Gln Val Val Leu Leu Ser Ala Thr Met Pro Thr Asp Val
      20             25             30
Leu Glu Val Thr Lys Lys Phe Met Arg Asp Pro Ile Arg Ile Leu Val
      35             40             45
Lys Lys Glu Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr Ile Asn
      50             55             60
Val Glu Arg Glu Glu Trp Lys Leu Asp Thr Leu Cys Asp Leu Tyr Glu
      65             70             75             80
Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Leu Asn Thr Arg Arg Lys
      85             90             95
Val Asp Trp Leu Thr Glu Lys Met His Ala Arg Asp Phe Thr Val Ser
      100            105            110
Ala Leu His Gly Asp Met Asp Gln Lys Glu Arg Asp Val Ile Met Arg
      115            120            125
Glu Phe Arg Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu
      130            135            140
Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn Tyr Asp
      145            150            155            160
Leu Pro Thr Asn Arg Glu Asn Tyr Ile His Arg Ile Gly Arg Gly Gly
      165            170            175
Arg Phe Gly Arg Lys Gly Val Ala Ile Asn Phe Val Thr Glu Glu Asp
      180            185            190
Lys Arg Ile Leu Arg Asp Ile Glu Thr Phe Tyr Asn Thr Thr Val Glu
      195            200            205
Glu Met Pro Met Asn Val Ala Asp Leu Ile
      210            215

```

<210> 1243

<211> 173

<212> PRT

<213> Homo sapiens

<400> 1243

```

Leu Asp Gly Ser Ala Arg Ala Glu Leu Ala Leu Ser Val Ala Val Asn
      1             5             10             15

```

1266

Val Ala Pro Gly Arg Leu Cys Ala Gly Arg Tyr Ser Ser Asp Val Gln
 20 25 30
 Glu Met Ile Leu Ser Ser Ala Thr Ala Asp Arg Ile Pro Ile Ala Val
 35 40 45
 Ser Gly Val Arg Gly Met Gly Phe Leu Met Arg His His Ile Glu Thr
 50 55 60
 Gly Gly Gly Gln Leu Pro Ala Lys Leu Ser Ser Leu Phe Val Lys Cys
 65 70 75 80
 Leu Gln Asn Pro Ser Ser Asp Ile Arg Leu Val Ala Glu Lys Met Ile
 85 90 95
 Trp Trp Ala Asn Lys Asp Pro Leu Pro Pro Leu Asp Pro Gln Ala Ile
 100 105 110
 Lys Pro Ile Leu Lys Ala Leu Leu Asp Asn Thr Lys Asp Lys Asn Thr
 115 120 125
 Val Val Arg Ala Tyr Ser Asp Gln Ala Ile Val Asn Leu Leu Lys Met
 130 135 140
 Arg Gln Gly Glu Glu Val Phe Gln Ser Leu Ser Lys Ile Leu Asp Val
 145 150 155 160
 Ala Ser Leu Glu Val Leu Asn Glu Val Asn Arg Ser Pro
 165 170

<210> 1244

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1244

Tyr Ile Lys Ile Tyr Gln Gly Glu Glu Leu Pro His Pro Lys Ser Met
 1 5 10 15

1267

Xaa Gln Ala Thr Ala Glu Ala Asn Asn Leu Ala Ala Val Ala Thr Ala
 20 25 30

Lys Asp Thr Tyr Asn Lys Lys Met Glu Glu Ile Cys Gly Gly Asp Lys
 35 40 45

Pro Phe Leu Ala Pro Asn Asp Leu Gln Thr Lys His Leu Gln Leu Lys
 50 55 60

Glu Glu Ser Val Lys Leu Phe Xaa Gly Val Lys Lys Met Gly Gly Glu
 65 70 75 80

Glu Phe Ser Arg Arg Tyr Leu Gln Gln Leu Glu Ser Glu Ile Asp Glu
 85 90 95

Leu Tyr Ile Gln Tyr Ile Lys His Asn Asp Ser Lys Asn Ile Phe His
 100 105 110

Ala Ala Arg Thr Pro Ala Thr Leu Phe Val Val Ile Phe Ile Thr Tyr
 115 120 125

Val Ile Ala Gly Val Thr Gly Phe Ile Gly Leu Asp Ile Ile Ala Ser
 130 135 140

Leu Cys Asn Met Ile Met Gly Leu Thr Leu Ile Thr Leu Cys Thr Trp
 145 150 155 160

Ala Tyr Ile Arg Tyr Ser Gly Glu Tyr Arg Glu Leu Gly Ala Val Ile
 165 170 175

Asp Gln Val Ala Ala Ala Leu Trp Asp Gln Ala Leu Tyr Lys Leu Tyr
 180 185 190

Ser Ala Ala Ala Thr His Arg His Leu Tyr His Gln Ala Phe Pro Thr
 195 200 205

Pro Lys Ser Glu Ser Thr Glu Gln Ser Glu Lys Lys Lys Met
 210 215 220

<210> 1245

<211> 278

<212> PRT

<213> Homo sapiens

<400> 1245

Ser Ala Glu Asp Val Glu Phe Gln Lys Glu Val Ala Gln Val Arg Lys
 1 5 10 15

1268

Arg Ile Thr Gln Arg Lys Lys Gln Glu Gln Leu Thr Pro Gly Val Val
 20 25 30

Tyr Val Arg His Leu Pro Asn Leu Leu Asp Glu Thr Gln Ile Phe Ser
 35 40 45

Tyr Phe Ser Gln Phe Gly Thr Val Thr Arg Phe Arg Leu Ser Arg Ser
 50 55 60

Lys Arg Thr Gly Asn Ser Lys Gly Tyr Ala Phe Val Glu Phe Glu Ser
 65 70 75 80

Glu Asp Val Ala Lys Ile Val Ala Glu Thr Met Asn Asn Tyr Leu Phe
 85 90 95

Gly Glu Arg Leu Leu Glu Cys His Phe Met Pro Pro Glu Lys Val His
 100 105 110

Lys Glu Leu Phe Lys Asp Trp Asn Ile Pro Phe Lys Gln Pro Ser Tyr
 115 120 125

Pro Ser Val Lys Arg Tyr Asn Arg Asn Arg Thr Leu Thr Gln Lys Leu
 130 135 140

Arg Met Glu Glu Arg Phe Lys Lys Lys Glu Arg Leu Leu Arg Lys Lys
 145 150 155 160

Leu Ala Lys Lys Gly Ile Asp Tyr Asp Phe Pro Ser Leu Ile Leu Gln
 165 170 175

Lys Thr Glu Ser Ile Ser Lys Thr Asn Arg Gln Thr Ser Thr Lys Gly
 180 185 190

Gln Val Leu Arg Lys Lys Lys Lys Lys Val Ser Gly Thr Leu Asp Thr
 195 200 205

Pro Glu Lys Thr Val Asp Ser Gln Gly Pro Thr Pro Val Cys Thr Pro
 210 215 220

Thr Phe Leu Glu Arg Arg Lys Ser Gln Val Ala Glu Leu Asn Asp Asp
 225 230 235 240

Asp Lys Asp Asp Glu Ile Val Phe Lys Gln Pro Ile Ser Cys Val Lys
 245 250 255

Glu Glu Ile Gln Glu Thr Gln Thr Pro Thr His Ser Arg Lys Lys Arg
 260 265 270

Arg Arg Ser Ser Asn Gln
 275

1269

<210> 1246

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1246

Ser Pro Pro Pro Leu Ser Leu Ile Leu Leu Ser Pro Ile Lys Ala Lys
 1 5 10 15

Tyr Gly Leu Thr Thr Ser Pro Lys Ser Val Leu Arg Pro Ser Leu Cys
 20 25 30

Leu Cys Ala Leu Leu Gly Val Ser Gln Arg Ser Gly Gln Asp Cys Ala
 35 40 45

Gly Pro Ala Ser Pro Cys Ala Ser Gln Glu His Arg Gln Gly Val Leu
 50 55 60

Val Ala Val Ala Gly His Leu Ser Pro Ser Ser Leu Leu Asn Val Leu
 65 70 75 80

Thr Ala Arg Gly Asn Gly Val Ser Phe Pro Thr Lys Lys Pro Leu Leu
 85 90 95

Tyr Ile Phe Xaa Leu Gln Ser His Arg Leu Gln Thr Thr Leu Leu Phe
 100 105 110

Phe Met Asp Phe Ser Ala His Phe Arg
 115 120

<210> 1247

<211> 36

<212> PRT

<213> Homo sapiens

<400> 1247

Ile Phe His Arg Val Leu Leu Cys Asp Leu Asn Phe Ser Leu Gly Pro
 1 5 10 15

Ala Ser Asp Ile Val Gly Gly Leu Ser Trp Phe Gln Glu Ile Arg Leu
 20 25 30

1270

Ala Phe Ser Ser
35

<210> 1248

<211> 184

<212> PRT

<213> Homo sapiens

<400> 1248

Trp Ile Pro Arg Ala Cys Arg Glu Phe Gly Thr Arg Phe Gly Gly Val
1 5 10 15

Thr Arg Gly Phe Asn Met Arg Ile Glu Lys Cys Tyr Phe Cys Ser Gly
20 25 30

Pro Ile Tyr Pro Gly His Gly Met Met Phe Val Arg Asn Asp Cys Lys
35 40 45

Val Phe Arg Phe Cys Lys Ser Lys Cys His Lys Asn Phe Lys Lys Lys
50 55 60

Arg Asn Pro Arg Lys Val Arg Trp Thr Lys Ala Phe Arg Lys Ala Ala
65 70 75 80

Gly Lys Glu Leu Thr Val Asp Asn Ser Phe Glu Phe Glu Lys Arg Arg
85 90 95

Asn Glu Pro Ile Lys Tyr Gln Arg Glu Leu Trp Asn Lys Thr Ile Asp
100 105 110

Ala Met Lys Arg Val Glu Glu Ile Lys Gln Lys Arg Gln Ala Lys Phe
115 120 125

Ile Met Asn Arg Leu Lys Lys Asn Lys Glu Leu Gln Lys Val Gln Asp
130 135 140

Ile Lys Glu Val Lys Gln Asn Ile His Leu Ile Arg Ala Pro Leu Ala
145 150 155 160

Gly Lys Gly Lys Gln Leu Glu Glu Lys Met Val Gln Gln Leu Gln Glu
165 170 175

Asp Val Asp Met Glu Asp Ala Pro
180

<210> 1249

<211> 188

1271

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1249

Gly Cys Pro Ala His Ser Pro Gly Ser Ala Lys Arg Trp Thr Gln Ala
1 5 10 15

Ala Met Ser Arg Pro Arg Met Arg Leu Val Val Thr Ala Asp Asp Phe
20 25 30

Gly Tyr Cys Pro Arg Arg Asp Glu Gly Ile Val Glu Ala Phe Leu Ala
35 40 45

Gly Ala Val Thr Ser Val Ser Leu Leu Val Asn Gly Ala Ala Thr Glu
50 55 60

Ser Ala Ala Glu Leu Ala Arg Arg His Ser Ile Pro Thr Gly Leu His
65 70 75 80

Ala Asn Leu Ser Glu Gly Arg Pro Val Gly Pro Ala Arg Arg Gly Ala
85 90 95

Ser Ser Leu Leu Gly Pro Glu Xaa Phe Phe Leu Gly Lys Met Gly Phe
100 105 110

Arg Glu Ala Val Ala Ala Gly Asp Val Asp Leu Pro Gln Val Arg Ser
115 120 125

Arg Ser Tyr Arg Arg Met Leu Ala Arg Thr Pro Arg Ala Pro Pro Gly
130 135 140

Gly Thr Val Arg Pro Leu Glu Leu Ala Val Asp Asp Phe Arg Ile Gln
145 150 155 160

Thr Leu Glu Pro Ser His Gly Ser Thr Arg Arg Val Ser Ser Ala Ala
165 170 175

Thr Pro Gly Arg Ser Arg Cys Leu Ser Leu Ala Leu
180 185

<210> 1250

<211> 201

<212> PRT

<213> Homo sapiens

1272

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1250

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Asn | Leu | Glu | Ile | Tyr | Glu | Ala | Val | Thr | Ser | Pro | Gln | Gly | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Thr | Trp | Ser | Met | Phe | Ala | Val | Gly | Trp | Met | Glu | Leu | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Gly | Xaa | Arg | Gly | Leu | Leu | Asp | Arg | Ser | Phe | Ala | Asn | Met | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Phe | Lys | Val | Trp | Thr | Glu | Asn | Ala | Asp | Gly | Ser | Gly | Ala | Val |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Phe | Leu | Thr | Gly | Met | Gly | Gly | Phe | Leu | Gln | Ala | Val | Val | Phe | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Gly | Phe | Arg | Val | Ser | Val | Ser | Gly | Ile | Phe | Tyr | Gln | Gly | Xaa |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Asn | Phe | Xaa | Phe | Ser | Glu | Asp | Ser | Val | Thr | Val | Glu | Val | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ala | Gly | Pro | Trp | Ala | Pro | His | Leu | Glu | Ala | Glu | Leu | Trp | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Ser | Arg | Leu | Ser | Leu | Leu | Pro | Gly | His | Lys | Val | Ser | Phe | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Ala | Gly | Arg | Ile | Gln | Met | Ser | Pro | Pro | Lys | Leu | Pro | Gly | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

1273

Ser Ser Ser Glu Phe Pro Gly Arg Thr Phe Ser Asp Val Arg Asp Pro
 165 170 175

Leu Gln Ser Pro Leu Trp Val Thr Leu Gly Ser Ser Ser Pro Thr Glu
 180 185 190

Ser Leu Thr Val Asp Pro Ala Ser Glu
 195 200

<210> 1251

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1251

Ser Val Gly Ser Val Ala Ala Ala Thr Arg Thr Gly Pro Val Ser Xaa
 1 5 10 15

Lys Lys Phe Arg Glu Ala Ser Trp Arg Phe Thr Phe Tyr Leu Ile Ala
 20 25 30

Phe Ile Ala Gly Met Ala Val Ile Val Asp Lys Pro Trp Phe Tyr Asp
 35 40 45

Met Lys Lys Val Trp Glu Gly Tyr Pro Ile Gln Ser Thr Ile Pro Ser
 50 55 60

Gln Tyr Trp Tyr Tyr Met Ile Glu Leu Ser Phe Tyr Trp Ser Leu Leu
 65 70 75 80

Phe Ser Ile Ala Ser Asp Val Lys Arg Lys Asp Phe Lys Glu Gln Ile
 85 90 95

Ile His His Val Ala Thr Ile Ile Leu Ile Ser Phe Ser Trp Phe Ala
 100 105 110

Asn Tyr Ile Arg Ala Gly Thr Leu Ile Met Ala Leu His Asp Ser Ser
 115 120 125

Asp Tyr Leu Leu Glu Ser Ala Lys Met Phe Asn Tyr Ala Gly Trp Lys
 130 135 140

Asn Thr Cys Asn Asn Ile Phe Ile Val Phe Ala Ile Val Phe Ile Ile

1274

145 150 155 160
 Thr Arg Leu Val Ile Leu Pro Phe Trp Ile Leu His Cys Thr Leu Val
 165 170 175
 Tyr Pro Leu Glu Leu Tyr Pro Ala Phe Phe Gly Tyr Tyr Phe Phe Asn
 180 185 190
 Ser Met Met Gly Val Leu Gln Leu Leu His Ile Phe Trp Ala Tyr Leu
 195 200 205
 Ile Leu Arg Met Ala His Lys Phe Ile Thr Gly Lys Leu Val Glu Asp
 210 215 220
 Glu Arg Ser Asp Arg Glu Glu Thr Glu Ser Ser Glu Gly Glu Glu Ala
 225 230 235 240
 Ala Ala Gly Gly Gly Ala Lys Ser Arg Pro Leu Ala Asn Gly His Pro
 245 250 255
 Ile Leu Asn Asn Asn His Arg Lys Asn Asp
 260 265

<210> 1252

<211> 163

<212> PRT

<213> Homo sapiens

<400> 1252

Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ala Gly Met Thr Ala Tyr
 1 5 10 15
 Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Met Gln Thr Asp Lys Pro
 20 25 30
 Phe Asp Gln Thr Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Gly Ala
 35 40 45
 Ser Gln Ala Gly Met Leu Ala Pro Gly Thr Arg Arg Asp Ile Tyr Asp
 50 55 60
 Gln Lys Leu Thr Leu Gln Pro Val Asp Asn Ser Thr Ile Ser Leu Gln
 65 70 75 80
 Met Gly Thr Asn Lys Val Ala Ser Gln Lys Gly Met Ser Val Tyr Gly
 85 90 95
 Leu Gly Arg Gln Val Tyr Asp Pro Lys Tyr Cys Ala Ala Pro Thr Glu
 100 105 110

1275

Pro Val Ile His Asn Gly Ser Gln Gly Thr Gly Thr Asn Gly Ser Glu
 115 120 125

Ile Ser Asp Ser Asp Tyr Gln Ala Glu Tyr Pro Asp Glu Tyr His Gly
 130 135 140

Glu Tyr Gln Asp Asp Tyr Pro Arg Asp Tyr Gln Tyr Ser Asp Gln Gly
 145 150 155 160

Ile Asp Tyr

<210> 1253

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1253

Leu Glu Glu Thr Pro Cys Leu Arg Thr Ala Val Ala Cys Glu Gln Arg
 1 5 10 15

Asp Pro Gly Thr Glu Ser Gln Pro Arg Arg Cys Cys Arg Arg Arg Arg
 20 25 30

Pro Glu Thr Ala Glu Pro Val Arg Pro Pro Pro Pro Pro Thr Pro Asp
 35 40 45

Thr Glu His Pro Val Met Asp Lys Asn Glu Leu Val Gln Lys Ala Lys
 50 55 60

Leu Ala Glu Gln Ala Glu Arg Tyr Asp Asp Met Ala Ala Cys Met Lys
 65 70 75 80

Ser Val Thr Glu Gln Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu
 85 90 95

Leu Ser Val Ala Tyr Lys Asn Val Val Gly Ala Arg Xaa Ser Ser Trp
 100 105 110

Arg Val Val Ser Ser Ile Glu Gln Lys Thr Glu Gly Ala Glu Lys Lys
 115 120 125

Gln Gln Met Ala Arg Glu Tyr Arg Glu Lys Ile Glu Thr Glu Leu Arg

1276

130 135 140
 Asp Ile Cys Asn Asp Val Leu Ser Leu Leu Glu Lys Phe Leu Ile Pro
 145 150 155 160
 Asn Ala Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly
 165 170 175
 Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Asp Lys Lys
 180 185 190
 Gly Ile Val Asp Gln Ser Gln Gln Ala Tyr Gln Glu Ala Phe Glu Ile
 195 200 205
 Ser Lys Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu Ala
 210 215 220
 Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Lys
 225 230 235 240
 Ala Cys Ser Leu Ala Lys Thr Ala Phe Asp Glu Ala Ile Ala Glu Leu
 245 250 255
 Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln
 260 265 270
 Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Thr Gln Gly Asp
 275 280 285
 Glu Ala Glu Ala Gly Glu Gly Gly Glu Asn
 290 295

<210> 1254

<211> 173

<212> PRT

<213> Homo sapiens

<400> 1254

Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile
 1 5 10 15
 Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly
 20 25 30
 Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala
 35 40 45
 Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val
 50 55 60

1277

Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly
 65 70 75 80
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala
 85 90 95
 Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu
 100 105 110
 Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser
 115 120 125
 Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys
 130 135 140
 Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu
 145 150 155 160
 Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn
 165 170

<210> 1255

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1255

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala
 1 5 10 15
 Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg
 20 25 30
 Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly
 35 40 45
 Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys
 50 55 60
 Arg Leu
 65

<210> 1256

<211> 389

<212> PRT

<213> Homo sapiens

1278

<400> 1256

Ala Glu Ala Gly Pro Gly Ala Arg Ala Ala Ala Met Ala Ile Lys
 1 5 10 15
 Phe Leu Glu Val Ile Lys Pro Phe Cys Val Ile Leu Pro Glu Ile Gln
 20 25 30
 Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys Val Leu Trp Thr Ala
 35 40 45
 Ile Thr Leu Phe Ile Phe Leu Val Cys Cys Gln Ile Pro Leu Phe Gly
 50 55 60
 Ile Met Ser Ser Asp Ser Ala Asp Pro Phe Tyr Trp Met Arg Val Ile
 65 70 75 80
 Leu Ala Ser Asn Arg Gly Thr Leu Met Glu Leu Gly Ile Ser Pro Ile
 85 90 95
 Val Thr Ser Gly Leu Ile Met Gln Leu Leu Ala Gly Ala Lys Ile Ile
 100 105 110
 Glu Val Gly Asp Thr Pro Lys Asp Arg Ala Leu Phe Asn Gly Ala Gln
 115 120 125
 Lys Leu Phe Gly Met Ile Ile Thr Ile Gly Gln Ser Ile Val Tyr Val
 130 135 140
 Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly Ala Gly Ile Cys
 145 150 155 160
 Leu Leu Ile Thr Ile Gln Leu Phe Val Ala Gly Leu Ile Val Leu Leu
 165 170 175
 Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly Ser Gly Ile Ser
 180 185 190
 Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val Trp Lys Ala Phe
 195 200 205
 Ser Pro Thr Thr Val Asn Thr Gly Arg Gly Met Glu Phe Glu Gly Ala
 210 215 220
 Ile Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr Asp Lys Val Arg
 225 230 235 240
 Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro Asn Leu Met Asn
 245 250 255
 Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile Tyr Phe Gln Gly

1279

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr Arg Gly Gln Tyr | | |
| 275 | 280 | 285 |
| Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn Ile Pro Ile Ile | | |
| 290 | 295 | 300 |
| Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile Ser Gln Met Leu | | |
| 305 | 310 | 315 |
| Ser Ala Arg Phe Ser Gly Asn Leu Leu Val Ser Leu Leu Gly Thr Trp | | |
| 325 | 330 | 335 |
| Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr Pro Val Gly Gly | | |
| 340 | 345 | 350 |
| Leu Cys Tyr Tyr Leu Ser Pro Pro Trp Ser Met Asn Ser Thr Gly Thr | | |
| 355 | 360 | 365 |
| Ser Pro Gln Pro Arg Pro Leu Val Gly Cys Ala Ser Gly Pro Ser Arg | | |
| 370 | 375 | 380 |
| Ser Trp Leu Thr Ser | | |
| 385 | | |

<210> 1257

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1257

| |
|---|
| Gly Xaa Pro Ser Ser Ser Arg Ala His Ser Pro Met Ile Ala Val Gly |
| 1 5 10 15 |
| Ser Asp Asp Ser Ser Pro Asn Ala Met Ala Lys Val Gln Ile Phe Glu |
| 20 25 30 |
| Tyr Asn Glu Asn Thr Arg Lys Tyr Ala Lys Ala Glu Thr Leu Met Thr |
| 35 40 45 |
| Val Thr Asp Pro Val His Asp Ile Ala Phe Ala Pro Asn Leu Gly Arg |
| 50 55 60 |

1280

Ser Phe His Ile Leu Ala Ile Ala Thr Lys Asp Val Arg Ile Phe Thr
 65 70 75 80
 Leu Lys Pro Val Arg Lys Glu Leu Thr Ser Ser Gly Gly Pro Thr Lys
 85 90 95
 Phe Glu Ile His Ile Val Ala Gln Phe Asp Asn His Asn Ser Gln Val
 100 105 110
 Trp Arg Val Ser Trp Asn Ile Thr Gly Thr Val Leu Ala Ser Ser Gly
 115 120 125
 Asp Asp Gly Cys Val Arg Leu Trp Lys Ala Asn Tyr Met Asp Asn Trp
 130 135 140
 Lys Cys Thr Gly Ile Leu Lys Gly Asn Gly Ser Pro Val Asn Gly Ser
 145 150 155 160
 Ser Gln Gln Gly Thr Ser Asn Pro Ser Leu Gly Ser Asn Ile Pro Ser
 165 170 175
 Leu Gln Asn Ser Leu Asn Gly Ser Ser Ala Gly Arg Lys His Ser
 180 185 190

<210> 1258

<211> 458

<212> PRT

<213> Homo sapiens

<400> 1258

Pro Gly Ala Arg His Gly Ser Ala Ser Ala Pro Thr Leu Phe Pro Leu
 1 5 10 15
 Val Ser Cys Glu Asn Ser Pro Ser Asp Thr Ser Ser Val Ala Val Gly
 20 25 30
 Cys Leu Ala Gln Asp Phe Leu Pro Asp Ser Ile Thr Phe Ser Trp Lys
 35 40 45
 Tyr Lys Asn Asn Ser Asp Ile Ser Ser Thr Arg Gly Phe Pro Ser Val
 50 55 60
 Leu Arg Gly Gly Lys Tyr Ala Ala Thr Ser Gln Val Leu Leu Pro Ser
 65 70 75 80
 Lys Asp Val Met Gln Gly Thr Asp Glu His Val Val Cys Lys Val Gln
 85 90 95
 His Pro Asn Gly Asn Lys Glu Lys Asn Val Pro Leu Pro Val Ile Ala

1281

| 100 | | | | | 105 | | | | | 110 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Pro | Pro | Lys | Val | Ser | Val | Phe | Val | Pro | Pro | Arg | Asp | Gly | Phe |
| 115 | | | | | 120 | | | | | 125 | | | | | |
| Phe | Gly | Asn | Pro | Arg | Lys | Ser | Lys | Leu | Ile | Cys | Gln | Ala | Thr | Gly | Phe |
| 130 | | | | | 135 | | | | | 140 | | | | | |
| Ser | Pro | Arg | Gln | Ile | Gln | Val | Ser | Trp | Leu | Arg | Glu | Gly | Lys | Gln | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ser | Gly | Val | Thr | Thr | Asp | Gln | Val | Gln | Ala | Glu | Ala | Lys | Glu | Ser |
| 165 | | | | | 170 | | | | | 175 | | | | | |
| Gly | Pro | Thr | Thr | Tyr | Lys | Val | Thr | Ser | Thr | Leu | Thr | Ile | Lys | Glu | Ser |
| 180 | | | | | 185 | | | | | 190 | | | | | |
| Asp | Trp | Leu | Ser | Gln | Ser | Met | Phe | Thr | Cys | Arg | Val | Asp | His | Arg | Gly |
| 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Thr | Phe | Gln | Gln | Asn | Ala | Ser | Ser | Met | Cys | Val | Pro | Asp | Gln | Asp |
| 210 | | | | | 215 | | | | | 220 | | | | | |
| Thr | Ala | Ile | Arg | Val | Phe | Ala | Ile | Pro | Pro | Ser | Phe | Ala | Ser | Ile | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Thr | Lys | Ser | Thr | Lys | Leu | Thr | Cys | Leu | Val | Thr | Asp | Leu | Thr | Thr |
| 245 | | | | | 250 | | | | | 255 | | | | | |
| Tyr | Asp | Ser | Val | Thr | Ile | Ser | Trp | Thr | Arg | Gln | Asn | Gly | Glu | Ala | Val |
| 260 | | | | | 265 | | | | | 270 | | | | | |
| Lys | Thr | His | Thr | Asn | Ile | Ser | Glu | Ser | His | Pro | Asn | Ala | Thr | Phe | Ser |
| 275 | | | | | 280 | | | | | 285 | | | | | |
| Ala | Val | Gly | Glu | Ala | Ser | Ile | Cys | Glu | Asp | Asp | Trp | Asn | Ser | Gly | Glu |
| 290 | | | | | 295 | | | | | 300 | | | | | |
| Arg | Phe | Thr | Cys | Thr | Val | Thr | His | Thr | Asp | Leu | Pro | Ser | Pro | Leu | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Thr | Ile | Ser | Arg | Pro | Lys | Gly | Val | Ala | Leu | His | Arg | Pro | Asp | Val |
| 325 | | | | | 330 | | | | | 335 | | | | | |
| Tyr | Leu | Leu | Pro | Pro | Ala | Arg | Glu | Gln | Leu | Asn | Leu | Arg | Glu | Ser | Ala |
| 340 | | | | | 345 | | | | | 350 | | | | | |
| Thr | Ile | Thr | Cys | Leu | Val | Thr | Gly | Phe | Ser | Pro | Ala | Asp | Val | Phe | Val |
| 355 | | | | | 360 | | | | | 365 | | | | | |
| Gln | Trp | Met | Gln | Arg | Gly | Gln | Pro | Leu | Ser | Pro | Glu | Lys | Tyr | Val | Thr |

1282

370 375 380
 Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala His
 385 390 395 400
 Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr Tyr
 405 410 415
 Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu Arg
 420 425 430
 Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser Leu
 435 440 445
 Val Met Ser Asp Thr Ala Gly Thr Cys Tyr
 450 455

<210> 1259

<211> 247

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1259

Ala Gly Pro Ala Pro Glu Glu Pro Arg Gly Gly Ala Ala Ala Arg Trp
 1 5 10 15
 Asp Cys Gln Pro Cys Gln Ala Ala Xaa Val Val Glu Asn Ser Ala Gln
 20 25 30
 Arg Val Ile His Leu Ala Gly Gln Trp Glu Lys His Arg Val Pro Leu
 35 40 45
 Leu Ala Glu Tyr Arg His Leu Arg Lys Leu Gln Asp Cys Arg Glu Leu
 50 55 60
 Glu Ser Ser Arg Arg Leu Ala Glu Ile Gln Glu Leu His Gln Ser Val
 65 70 75 80
 Arg Ala Ala Ala Glu Glu Ala Arg Arg Lys Glu Glu Val Tyr Lys Gln
 85 90 95
 Leu Met Ser Glu Leu Glu Thr Leu Pro Arg Asp Val Ser Arg Leu Ala
 100 105 110

1283

Tyr Thr Gln Arg Ile Leu Glu Ile Val Gly Asn Ile Arg Lys Gln Lys
 115 120 125

Glu Glu Ile Thr Lys Ile Leu Ser Asp Thr Lys Glu Leu Gln Lys Glu
 130 135 140

Ile Asn Ser Leu Ser Gly Lys Leu Asp Arg Thr Phe Ala Val Thr Asp
 145 150 155 160

Glu Leu Val Phe Lys Asp Ala Lys Lys Asp Asp Ala Val Arg Lys Ala
 165 170 175

Tyr Lys Tyr Leu Ala Ala Leu His Glu Asn Cys Ser Gln Leu Ile Gln
 180 185 190

Thr Ile Glu Asp Thr Gly Thr Ile Met Arg Glu Val Arg Asp Leu Glu
 195 200 205

Glu Gln Ile Glu Thr Glu Leu Gly Lys Lys Thr Leu Ser Asn Leu Glu
 210 215 220

Lys Ile Arg Glu Asp Tyr Arg Ala Leu Arg Gln Glu Asn Ala Gly Leu
 225 230 235 240

Leu Gly Arg Val Arg Glu Ala
 245

<210> 1260

<211> 62

<212> PRT

<213> Homo sapiens

<400> 1260

Val Gly Ile Lys Trp Ile Glu Glu Ala Val Leu Cys Ala Asn Val Ser
 1 5 10 15

Phe Ala Ser Asp Arg Tyr Leu Phe Val Ile Arg Arg Val Ala Ser Phe
 20 25 30

His Leu Gly Ala Glu Asn Ser Arg Gln Leu Leu Thr Asp Lys Phe Asn
 35 40 45

Leu His Leu Gln Tyr Cys Met Leu Gly Ile Ser Ala Tyr Phe
 50 55 60

<210> 1261

<211> 243

1284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (226)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1261

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Arg | Pro | Gly | Asn | Phe | Tyr | Val | Ser | Ser | Glu | Ser | Ile | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Pro | Val | Arg | Pro | Trp | Arg | Asp | Arg | Pro | Gln | Ser | Ser | Ile | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Phe | Ala | Gly | Met | Lys | Thr | Pro | Gly | Gln | Arg | Gln | Leu | Ile | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | Glu | Gln | Val | Lys | Leu | Gly | Ile | Val | Asn | Val | Asp | Glu | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Phe | Lys | Glu | Trp | Gln | Leu | Asn | Gln | Lys | Xaa | Arg | Ser | Glu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Phe | Gln | Gln | Glu | Asn | Leu | Lys | Arg | Leu | Arg | Asp | Ser | Ile | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Gln | Arg | Glu | Lys | Gln | Lys | Ser | Gly | Lys | Gln | Thr | Asp | Leu | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Val | Pro | Ile | Arg | His | Ser | Gln | His | Leu | Pro | Ala | Lys | Val | Glu |
| | 115 | | | | | | | 120 | | | | | 125 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Val | Tyr | Glu | Ser | Gly | Pro | Arg | Lys | Ser | Val | Ile | Pro | Pro | Arg |
| | 130 | | | | | 135 | | | | | | 140 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Leu | Arg | Arg | Gly | Asp | Trp | Lys | Thr | Asp | Ser | Thr | Ser | Ser | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Ser | Thr | Ser | Asn | Arg | Ser | Ser | Thr | Arg | Ser | Leu | Leu | Ser | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |

1285

Ser Ser Gly Met Glu Gly Asp Asn Glu Asp Asn Glu Val Pro Glu Val
 180 185 190

Thr Arg Ser Arg Ser Pro Gly Pro Pro Gln Val Asp Gly Thr Pro Thr
 195 200 205

Met Xaa Leu Glu Arg Pro Pro Arg Val Pro Pro Arg Ala Ala Ser Gln
 210 215 220

Arg Xaa Pro Thr Arg Glu Thr Phe His Pro Pro Pro Pro Val Pro Pro
 225 230 235 240

Arg Gly Arg

<210> 1262

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1262

Lys Tyr Val Arg Asn Asp Gln Asn Lys Arg Lys Phe Leu Phe Ser Cys
 1 5 10 15

Lys Tyr Phe Ser Ser Val Ile Thr Leu Lys Tyr Lys Leu Lys Tyr Asn
 20 25 30

Thr Pro Glu Cys Leu Arg His Asp Leu Asp Phe Lys Cys Val Val Phe
 35 40 45

Ile Glu Lys Lys Leu Ser Thr His Leu Val Phe Gln Glu Asn Leu Lys
 50 55 60

Arg Ser Gln Gly Lys Met Ile Cys Met Leu Lys
 65 70 75

<210> 1263

<211> 475

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

1286

<400> 1263

```

Arg Thr Gly Leu Gly Arg Asp Val Gly Ala Gly Ala Arg Arg Ala Ala
 1             5             10             15

Arg Cys Arg Ala Glu Ala Ala Ala Ala Val Gly Thr Ala Arg Ser Pro
      20             25             30

Ala Leu Gly Met Ala Leu Leu Val Leu Gly Leu Val Ser Cys Thr Phe
      35             40             45

Phe Leu Ala Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu
      50             55             60

Leu Thr Pro Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu
      65             70             75             80

Trp Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu
      85             90             95

Thr Pro Glu Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys
      100             105             110

Val Gly Ala Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr
      115             120             125

Gly Val Gln Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn
      130             135             140

Arg Pro Glu Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp
      145             150             155             160

Ala Ala Leu Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly
      165             170             175

Arg Ser Gly Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser
      180             185             190

Ser Lys Lys Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn
      195             200             205

Val Leu Asp Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp
      210             215             220

Cys Gly His Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ala Ser
      225             230             235             240

Glu Val Lys Glu Gln Thr Lys Gly Xaa Val Lys Leu Ala Ala Val Asp
      245             250             255

Ala Thr Val Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe
      260             265             270

```

1287

Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp
 275 280 285

Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe
 290 295 300

Ser Asp Asn Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp
 305 310 315 320

Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val
 325 330 335

Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu
 340 345 350

Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly
 355 360 365

Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu
 370 375 380

Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg
 385 390 395 400

Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile
 405 410 415

Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro
 420 425 430

Val Gly Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp
 435 440 445

Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp
 450 455 460

Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu
 465 470 475

<210> 1264

<211> 398

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

<223> xaa equals any of the naturally occurring L-amino acids

1288

<400> 1264

His Phe Glu Arg Thr Ser Ser Lys Arg Val Ser Arg Ser Leu Asp Gly
 1 5 10 15
 Ala Pro Ile Gly Val Met Asp Gln Ser Leu Met Xaa Asp Phe Pro Gly
 20 25 30
 Ala Ala Gly Glu Ile Ser Ala Tyr Gly Pro Gly Leu Val Ser Ile Ala
 35 40 45
 Val Val Gln Asp Gly Asp Gly Arg Arg Glu Val Arg Ser Pro Thr Lys
 50 55 60
 Ala Pro His Leu Gln Leu Ile Glu Gly Lys Ser Ser His Glu Thr Leu
 65 70 75 80
 Asn Ile Val Glu Glu Lys Lys Arg Ala Glu Val Gly Lys Asp Glu Arg
 85 90 95
 Val Ile Thr Glu Glu Met Asn Gly Lys Glu Ile Ser Pro Gly Ser Gly
 100 105 110
 Pro Gly Glu Ile Arg Lys Val Glu Pro Val Thr Gln Lys Asp Ser Thr
 115 120 125
 Ser Leu Ser Ser Glu Ser Ser Ser Ser Ser Ser Glu Ser Glu Glu Glu
 130 135 140
 Asp Val Gly Glu Tyr Arg Pro His His Arg Val Thr Glu Gly Thr Ile
 145 150 155 160
 Arg Glu Glu Gln Glu Tyr Glu Glu Glu Val Glu Glu Glu Pro Arg Pro
 165 170 175
 Ala Ala Lys Val Val Glu Arg Glu Glu Ala Val Pro Glu Ala Ser Pro
 180 185 190
 Val Thr Gln Ala Gly Ala Ser Val Ile Thr Val Glu Thr Val Ile Gln
 195 200 205
 Glu Asn Val Gly Ala Gln Lys Ile Pro Gly Glu Lys Ser Val His Glu
 210 215 220
 Gly Ala Leu Lys Gln Asp Met Gly Glu Glu Ala Glu Glu Glu Pro Gln
 225 230 235 240
 Lys Val Asn Gly Glu Val Ser His Val Asp Ile Asp Val Leu Pro Gln
 245 250 255
 Ile Ile Cys Cys Ser Glu Pro Pro Val Val Lys Thr Glu Met Val Thr

1289

| | | |
|---|-----|---------|
| 260 | 265 | 270 |
| Ile Ser Asp Ala Ser Gln Arg Thr Glu Ile Ser Thr Lys Glu Val Pro | | |
| 275 | 280 | 285 |
| Ile Val Gln Thr Glu Thr Lys Thr Ile Thr Tyr Glu Ser Pro Gln Ile | | |
| 290 | 295 | 300 |
| Asp Gly Gly Ala Gly Gly Asp Ser Gly Thr Leu Leu Thr Ala Gln Thr | | |
| 305 | 310 | 315 320 |
| Ile Thr Ser Glu Ser Val Ser Thr Thr Thr Thr Thr His Ile Thr Lys | | |
| 325 | 330 | 335 |
| Thr Val Lys Gly Gly Ile Ser Glu Thr Arg Ile Glu Lys Arg Ile Val | | |
| 340 | 345 | 350 |
| Ile Thr Gly Asp Gly Asp Ile Asp His Asp Gln Ala Leu Ala Gln Ala | | |
| 355 | 360 | 365 |
| Ile Arg Glu Ala Arg Glu Gln His Pro Asp Met Ser Val Thr Arg Val | | |
| 370 | 375 | 380 |
| Val Val His Lys Glu Thr Glu Leu Ala Glu Glu Gly Glu Asp | | |
| 385 | 390 | 395 |

<210> 1265

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1265

| |
|--|
| Trp Thr Gly Thr Gly Arg Gly Ala Val Ala Ile Met Ala Asp Pro Asp |
| 1 5 10 15 |

| |
|---|
| Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser |
| 20 25 30 |

| |
|---|
| Ser Val Ala Ser Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys |
| 35 40 45 |

| |
|---|
| Val Tyr Ser Ile Leu Ser Leu Gln Val Leu Leu Thr Thr Val Thr Ser |
| 50 55 60 |

1290

Thr Val Phe Leu Tyr Phe Glu Ser Val Arg Thr Phe Val His Glu Ser
 65 70 75 80
 Pro Ala Leu Ile Leu Leu Phe Ala Leu Gly Ser Leu Gly Leu Ile Phe
 85 90 95
 Ala Leu Xaa Leu Asn Arg His Lys Tyr Pro Leu Asn Leu Tyr Leu Leu
 100 105 110
 Phe Gly Phe Thr Leu Leu Glu Ala Leu Thr Val Ala Val Val Val Thr
 115 120 125
 Phe Tyr Asp Val Tyr Ile Ile Leu Gln Ala Phe Ile Leu Thr Thr Thr
 130 135 140
 Val Phe Phe Gly Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe
 145 150 155 160
 Ser Lys Phe Gly Ala Gly Leu Phe Ala Leu Leu Trp Ile Leu Cys Leu
 165 170 175
 Ser Gly Phe Leu Lys Phe Phe Phe Tyr Ser Glu Ile Met Glu Leu Val
 180 185 190
 Leu Ala Ala Ala Gly Ala Leu Leu Phe Trp Gly Ile His His Leu
 195 200 205

<210> 1266

<211> 289

<212> PRT

<213> Homo sapiens

<400> 1266

Ser Arg Asp Pro Asn Gly Trp Trp Arg Arg Leu Arg Val Ser Ala Glu
 1 5 10 15
 Leu Ala Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu
 20 25 30
 Ala Leu Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg
 35 40 45
 Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg
 50 55 60
 Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser
 65 70 75 80
 Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr

1291

| | | | | 85 | | | | | 90 | | | | | | 95 | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Leu | Thr | Lys | Glu | Glu | Cys | Leu | Lys | Lys | Cys | Ala | Thr | Val | Thr | Glu | Asn | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ala | Thr | Gly | Asp | Leu | Ala | Thr | Ser | Arg | Asn | Ala | Ala | Asp | Ser | Ser | Val | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Pro | Ser | Ala | Pro | Arg | Arg | Gln | Asp | Ser | Glu | Asp | His | Ser | Ser | Asp | Met | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Phe | Asn | Tyr | Glu | Glu | Tyr | Cys | Thr | Ala | Asn | Ala | Val | Thr | Gly | Pro | Cys | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Arg | Ala | Ser | Phe | Pro | Arg | Trp | Tyr | Phe | Asp | Val | Glu | Arg | Asn | Ser | Cys | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Asn | Asn | Phe | Ile | Tyr | Gly | Gly | Cys | Arg | Gly | Asn | Lys | Asn | Ser | Tyr | Arg | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ser | Glu | Glu | Ala | Cys | Met | Leu | Arg | Cys | Phe | Arg | Gln | Gln | Glu | Asn | Pro | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Pro | Leu | Pro | Leu | Gly | Ser | Lys | Val | Val | Val | Leu | Ala | Gly | Leu | Phe | Val | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Met | Val | Leu | Ile | Leu | Phe | Leu | Gly | Ala | Ser | Met | Val | Tyr | Leu | Ile | Arg | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Val | Ala | Arg | Arg | Asn | Gln | Glu | Arg | Ala | Leu | Arg | Thr | Val | Trp | Ser | Ser | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Gly | Asp | Asp | Lys | Glu | Gln | Leu | Val | Lys | Asn | Thr | Tyr | Val | Leu | Cys | Arg | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Pro | Val | Ala | Lys | Arg | Thr | Gly | Glu | Gly | Arg | Gly | Asp | Met | Cys | Asp | Phe | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |

Phe

<210> 1267

<211> 284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

1292

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1267

Arg Gly Arg Arg Xaa Xaa Ala Ser Leu Arg Gly Trp Pro Val Arg Arg
1 5 10 15

Gly Met Gly Arg Val Gln Leu Phe Glu Ile Ser Leu Ser His Gly Arg
20 25 30

Val Val Tyr Ser Pro Gly Glu Pro Leu Ala Gly Thr Val Arg Val Arg
35 40 45

Leu Gly Ala Pro Leu Pro Phe Arg Ala Ile Arg Val Thr Cys Ile Gly
50 55 60

Ser Cys Gly Val Ser Asn Lys Ala Asn Asp Thr Ala Trp Val Val Glu
65 70 75 80

Glu Gly Tyr Phe Asn Ser Ser Leu Ser Leu Ala Asp Lys Gly Ser Leu
85 90 95

Pro Ala Gly Glu His Ser Phe Pro Phe Gln Phe Leu Leu Pro Ala Thr
100 105 110

Ala Pro Thr Ser Phe Glu Gly Pro Phe Gly Lys Ile Val His Gln Val
115 120 125

Arg Ala Ala Ile His Thr Pro Arg Phe Ser Lys Asp His Lys Cys Ser
130 135 140

Leu Val Phe Tyr Ile Leu Ser Pro Leu Asn Leu Asn Ser Ile Pro Asp
145 150 155 160

Ile Glu Gln Pro Asn Val Ala Ser Ala Thr Lys Lys Phe Ser Tyr Lys
165 170 175

Leu Val Lys Thr Gly Ser Val Val Leu Thr Ala Ser Thr Asp Leu Arg
180 185 190

Gly Tyr Val Val Gly Gln Ala Leu Gln Leu His Ala Asp Val Glu Asn
195 200 205

Gln Ser Gly Lys Asp Thr Ser Pro Val Val Ala Ser Leu Leu Gln Lys
210 215 220

Val Ser Tyr Lys Ala Lys Arg Trp Ile His Asp Val Arg Thr Ile Ala

1293

225 230 235 240
 Glu Val Glu Gly Ala Gly Val Lys Ala Trp Arg Arg Ala Gln Trp His
 245 250 255
 Glu Gln Ile Leu Val Pro Ala Leu Pro Gln Ser Ala Leu Pro Ala Ala
 260 265 270
 Ala Ser Ser Thr Ser Thr Thr Thr Tyr Arg Ser Leu
 275 280

<210> 1268
 <211> 254
 <212> PRT
 <213> Homo sapiens

<400> 1268
 Val Trp Leu Arg Val Glu Asn Val Cys Gln Gly Pro Gly Gln Glu Gly
 1 5 10 15
 Gly Pro Pro Val Thr Met Val Ser Met Ser Phe Lys Arg Asn Arg Ser
 20 25 30
 Asp Arg Phe Tyr Ser Thr Arg Cys Cys Gly Cys Cys His Val Arg Thr
 35 40 45
 Gly Thr Ile Ile Leu Gly Thr Trp Tyr Met Val Val Asn Leu Leu Met
 50 55 60
 Ala Ile Leu Leu Thr Val Glu Val Thr His Pro Asn Ser Met Pro Ala
 65 70 75 80
 Val Asn Ile Gln Tyr Glu Val Ile Gly Asn Tyr Tyr Ser Ser Glu Arg
 85 90 95
 Met Ala Asp Asn Ala Cys Val Leu Phe Ala Val Ser Val Leu Met Phe
 100 105 110
 Ile Ile Ser Ser Met Leu Val Tyr Gly Ala Ile Ser Tyr Gln Val Gly
 115 120 125
 Trp Leu Ile Pro Phe Phe Cys Tyr Arg Leu Phe Asp Phe Val Leu Ser
 130 135 140
 Cys Leu Val Ala Ile Ser Ser Leu Thr Tyr Leu Pro Arg Ile Lys Glu
 145 150 155 160
 Tyr Leu Asp Gln Leu Pro Asp Phe Pro Tyr Lys Asp Asp Leu Leu Ala
 165 170 175

1294

Leu Asp Ser Ser Cys Leu Leu Phe Ile Val Leu Val Phe Phe Ala Leu
 180 185 190

Phe Ile Ile Phe Lys Ala Tyr Leu Ile Asn Cys Val Trp Asn Cys Tyr
 195 200 205

Lys Tyr Ile Asn Asn Arg Asn Val Pro Glu Ile Ala Val Tyr Pro Ala
 210 215 220

Phe Glu Ala Pro Pro Gln Tyr Val Leu Pro Thr Tyr Glu Met Ala Val
 225 230 235 240

Lys Met Pro Glu Lys Glu Pro Pro Pro Pro Tyr Leu Pro Ala
 245 250

<210> 1269

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1269

Lys Ser Ile Leu Val Ile Arg Val Tyr Phe Phe Tyr Arg Thr Arg Trp
 1 5 10 15

Xaa Gly Gly Glu Pro Phe Thr Leu Leu Val Lys Leu Asn His Arg Lys
 20 25 30

Phe Thr Ile Cys Leu Ser Gln Thr Leu Ala Val Arg Gly Met Val Ala

1295

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | 35 | | | | | 40 | | | | | | 45 | | | | | | | |
| Xaa | Ala | Cys | Xaa | Xaa | Pro | Ala | Cys | Trp | Gly | Gly | Pro | Ser | Trp | Gly | Gly | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |

Leu Pro Glu
65

<210> 1270

<211> 164

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1270

1296

Gly Ser Pro Gly Thr Xaa Arg Ile Pro Xaa Thr Arg Xaa Glu Thr Cys
 1 5 10 15
 Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr Glu
 20 25 30
 Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala Gly
 35 40 45
 Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly Gly
 50 55 60
 Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr Gly
 65 70 75 80
 Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu Trp
 85 90 95
 Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly Thr
 100 105 110
 Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp Met
 115 120 125
 Met Val Asp Cys Thr Cys Leu Gly Glu Xaa Ser Gly Arg Ile Thr Cys
 130 135 140
 Thr Ser Arg Asn Arg Cys Asn Xaa Gln Asp Thr Arg Thr Ser Ile Glu
 145 150 155 160
 Xaa Glu Thr Xaa

<210> 1271

<211> 363

<212> PRT

<213> Homo sapiens

<400> 1271

Ala Arg Gly Ser Glu Cys Gly Gln Arg Ala Glu Ala Val Ser His Arg
 1 5 10 15
 Arg Arg Arg Arg Ala Gln Ala Ser Ser Phe Gly Trp Gly Ala Ala Glu
 20 25 30
 Leu Thr Ser Asp Ile Ser Ala Pro Phe Thr Arg Arg Asn Pro Gly Ala
 35 40 45
 Gly Ala Arg Ser Ala Gly Val Thr Met Thr Lys Ala Gly Ser Lys Gly

1297

| | | | | |
|---|-----|----|-----|-----|
| 50 | | 55 | | 60 |
| Gly Asn Leu Arg Asp Lys Leu Asp Gly Asn Glu Leu Asp Leu Ser Leu | | | | |
| 65 | | 70 | | 75 |
| Ser Asp Leu Asn Glu Val Pro Val Lys Glu Leu Ala Ala Leu Pro Lys | | | | |
| | 85 | | 90 | 95 |
| Ala Thr Ile Leu Asp Leu Ser Cys Asn Lys Leu Thr Thr Leu Pro Ser | | | | |
| | 100 | | 105 | 110 |
| Asp Phe Cys Gly Leu Thr His Leu Val Lys Leu Asp Leu Ser Lys Asn | | | | |
| | 115 | | 120 | 125 |
| Lys Leu Gln Gln Leu Pro Ala Asp Phe Gly Arg Leu Val Asn Leu Gln | | | | |
| | 130 | | 135 | 140 |
| His Leu Asp Leu Leu Asn Asn Lys Leu Val Thr Leu Pro Val Ser Phe | | | | |
| | 145 | | 150 | 155 |
| Ala Gln Leu Lys Asn Leu Lys Trp Leu Asp Leu Lys Asp Asn Pro Leu | | | | |
| | 165 | | 170 | 175 |
| Asp Pro Val Leu Ala Lys Val Ala Gly Asp Cys Leu Asp Glu Lys Gln | | | | |
| | 180 | | 185 | 190 |
| Cys Lys Gln Cys Ala Asn Lys Val Leu Gln His Met Lys Ala Val Gln | | | | |
| | 195 | | 200 | 205 |
| Ala Asp Gln Glu Arg Glu Arg Gln Arg Arg Leu Glu Val Glu Arg Glu | | | | |
| | 210 | | 215 | 220 |
| Ala Glu Lys Lys Arg Glu Ala Lys Gln Arg Ala Lys Glu Ala Gln Glu | | | | |
| | 225 | | 230 | 235 |
| Arg Glu Leu Arg Lys Arg Glu Lys Ala Glu Glu Lys Glu Arg Arg Arg | | | | |
| | 245 | | 250 | 255 |
| Lys Glu Tyr Asp Ala Leu Lys Ala Ala Lys Arg Glu Gln Glu Lys Lys | | | | |
| | 260 | | 265 | 270 |
| Pro Lys Lys Glu Ala Asn Gln Ala Pro Lys Ser Lys Ser Gly Ser Arg | | | | |
| | 275 | | 280 | 285 |
| Pro Arg Lys Pro Pro Pro Arg Lys His Thr Arg Ser Trp Ala Val Leu | | | | |
| | 290 | | 295 | 300 |
| Lys Leu Leu Leu Leu Leu Leu Phe Gly Val Ala Gly Gly Leu Val | | | | |
| | 305 | | 310 | 315 |
| Ala Cys Arg Val Thr Glu Leu Gln Gln Gln Pro Leu Cys Thr Ser Val | | | | |

1298

| | | | | | |
|---|-----|--|-----|--|-----|
| | 325 | | 330 | | 335 |
| Asn Thr Ile Tyr Asp Asn Ala Val Gln Gly Leu Arg Arg His Glu Ile | | | | | |
| | 340 | | 345 | | 350 |
| Leu Gln Trp Val Leu Gln Thr Asp Ser Gln Gln | | | | | |
| | 355 | | 360 | | |

<210> 1272

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1272

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Val | Met | Ala | Pro | Ile | Ala | Cys | Leu | Leu | Pro | Ala | Phe | Ser | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Glu | Ala | Met | His | Pro | Trp | Glu | Leu | Phe | Val | Lys | Tyr | Tyr | His |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Asn | Gly | Arg | Ala | Tyr | Val | Glu | Ser | Pro | Ala | Arg | Lys | Leu | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Phe | Ala | Leu | Pro | Val | Thr | Gly | Gly | Thr | Val | Val | Thr | Pro | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Leu | Leu | Thr | Ala | Ile | His | Met | Val | Leu | Thr | Glu | His | Asp | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Lys | Arg | Ser | Ala | Asp | Ser | Glu | Leu | Lys | Ala | Leu | Val | Cys | Met | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Glu | Pro | Ala | Ser | Gly | Val | Leu | Gly | Glu | Pro | His | Leu | Gln | Xaa |
| | | | 100 | | | | | 105 | | | | | | 110 | |

1299

Arg Val Thr Xaa Arg Ala Ser Leu Pro Ala Leu Xaa Leu His Gly Thr
 115 120 125

His Arg Leu Leu Lys Ile Ala Ser Thr Cys Ser Val Ala Ser Thr Thr
 130 135 140

<210> 1273

<211> 252

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1273

Ala Arg Ala Pro Pro Arg Pro Arg Arg Ala Gly Arg Cys Gln Leu Pro
 1 5 10 15

Gln Arg Pro Ala Glu Ala Arg Cys Met Leu Ser Arg Cys Arg Ser Xaa
 20 25 30

Leu Leu His Val Leu Gly Leu Ser Phe Leu Leu Gln Thr Arg Arg Pro
 35 40 45

Ile Leu Leu Cys Ser Pro Arg Leu Met Lys Pro Leu Val Val Phe Val
 50 55 60

Leu Gly Gly Pro Gly Ala Gly Lys Gly Thr Gln Cys Ala Arg Ile Val
 65 70 75 80

Glu Lys Tyr Gly Tyr Thr His Leu Ser Ala Gly Glu Leu Leu Arg Asp
 85 90 95

Glu Arg Lys Asn Pro Asp Ser Gln Tyr Gly Glu Leu Ile Glu Lys Tyr
 100 105 110

Ile Lys Glu Gly Lys Ile Val Pro Val Glu Ile Thr Ile Ser Leu Leu
 115 120 125

Lys Arg Glu Met Asp Gln Thr Met Ala Ala Asn Ala Gln Lys Asn Lys
 130 135 140

Phe Leu Ile Asp Gly Phe Pro Arg Asn Gln Asp Asn Leu Gln Gly Trp

1300

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 |
| Asn Lys Thr Met Asp Gly Lys Ala Asp Val Ser Phe Val Leu Phe Phe | | | | | | |
| | 165 | | 170 | | 175 | |
| Asp Cys Asn Asn Glu Ile Cys Ile Glu Arg Cys Leu Glu Arg Gly Lys | | | | | | |
| | 180 | | 185 | | 190 | |
| Ser Ser Gly Arg Ser Asp Asp Asn Arg Glu Ser Leu Glu Lys Arg Ile | | | | | | |
| | 195 | | 200 | | 205 | |
| Gln Thr Tyr Leu Gln Ser Thr Lys Pro Ile Ile Asp Leu Tyr Glu Glu | | | | | | |
| | 210 | | 215 | | 220 | |
| Met Gly Lys Val Lys Lys Ile Asp Ala Ser Lys Ser Val Asp Glu Val | | | | | | |
| | 225 | | 230 | | 235 | 240 |
| Phe Asp Glu Val Val Gln Ile Phe Asp Lys Glu Gly | | | | | | |
| | 245 | | 250 | | | |

<210> 1274

<211> 425

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1274

| | | | | | | | |
|---|----|---|----|----|----|----|----|
| Ala Ser Glu Arg Ser Glu Ala Arg Arg Lys Leu Arg Glu Cys Asp Gly | | | | | | | |
| 1 | | 5 | | 10 | | 15 | |
| Leu Val Asp Ala Leu Ile Phe Ile Val Gln Ala Glu Ile Gly Gln Lys | | | | | | | |
| | 20 | | 25 | | 30 | | |
| Asp Ser Xaa Ser Lys Leu Val Glu Asn Cys Val Cys Leu Leu Arg Asn | | | | | | | |
| | 35 | | 40 | | 45 | | |
| Leu Ser Tyr Gln Val His Arg Glu Ile Pro Gln Ala Glu Arg Tyr Gln | | | | | | | |
| | 50 | | 55 | | 60 | | |
| Glu Ala Ala Pro Asn Val Ala Asn Asn Thr Gly Pro His Ala Ala Ser | | | | | | | |
| | 65 | | 70 | | 75 | | 80 |
| Cys Phe Gly Ala Lys Lys Gly Lys Gly Lys Lys Pro Ile Glu Asp Pro | | | | | | | |
| | 85 | | 90 | | 95 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Asn | Asp | Thr | Val | Asp | Phe | Pro | Lys | Arg | Thr | Ser | Pro | Ala | Arg | Gly | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Tyr | Glu | Leu | Leu | Phe | Gln | Pro | Glu | Val | Val | Arg | Ile | Tyr | Ile | Ser | Leu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Leu | Lys | Glu | Ser | Lys | Thr | Pro | Ala | Ile | Leu | Glu | Ala | Ser | Ala | Gly | Ala | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | Gln | Asn | Leu | Cys | Ala | Gly | Arg | Trp | Thr | Tyr | Gly | Arg | Tyr | Ile | Arg | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ser | Ala | Leu | Arg | Gln | Glu | Lys | Ala | Leu | Ser | Ala | Ile | Ala | Asp | Leu | Leu | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Thr | Asn | Glu | His | Glu | Arg | Val | Val | Lys | Ala | Ala | Ser | Gly | Ala | Leu | Arg | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Asn | Leu | Ala | Val | Asp | Ala | Arg | Asn | Lys | Glu | Leu | Ile | Gly | Lys | His | Ala | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Ile | Pro | Asn | Leu | Val | Lys | Asn | Leu | Pro | Gly | Gly | Gln | Gln | Asn | Ser | Ser | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Trp | Asn | Phe | Ser | Glu | Asp | Thr | Val | Ile | Ser | Ile | Leu | Asn | Thr | Ile | Asn | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Glu | Val | Ile | Ala | Glu | Asn | Leu | Glu | Ala | Ala | Lys | Lys | Leu | Arg | Glu | Thr | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Gln | Gly | Ile | Glu | Lys | Leu | Val | Leu | Ile | Asn | Lys | Ser | Gly | Asn | Arg | Ser | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Glu | Lys | Glu | Val | Arg | Ala | Ala | Ala | Leu | Val | Leu | Gln | Thr | Ile | Trp | Gly | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Tyr | Lys | Glu | Leu | Arg | Lys | Pro | Leu | Glu | Lys | Glu | Gly | Trp | Lys | Lys | Ser | |
| | | 290 | | | | 295 | | | | | 300 | | | | | |
| Asp | Phe | Gln | Val | Asn | Leu | Asn | Asn | Ala | Ser | Arg | Ser | Gln | Ser | Ser | His | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | |
| Ser | Tyr | Asp | Asp | Ser | Thr | Leu | Pro | Leu | Ile | Asp | Arg | Asn | Gln | Lys | Ser | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Asp | Lys | Lys | Pro | Asp | Arg | Glu | Glu | Ile | Gln | Met | Ser | Asn | Met | Gly | Ser | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Asn | Thr | Lys | Ser | Leu | Asp | Asn | Asn | Tyr | Ser | Thr | Pro | Asn | Glu | Arg | Gly | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |

1302

Asp His Asn Arg Thr Leu Asp Arg Ser Gly Asp Leu Gly Asp Met Glu
 370 375 380

Pro Leu Lys Gly Thr Thr Pro Leu Met Gln Asp Glu Gly Gln Glu Ser
 385 390 395 400

Leu Glu Glu Glu Leu Asp Val Leu Val Leu Asp Asp Glu Gly Gly Gln
 405 410 415

Val Ser Tyr Pro Ser Met Gln Lys Ile
 420 425

<210> 1275

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1275

Phe Phe Phe Ser Ser Leu Phe Ser Leu Xaa Phe Leu Lys Lys Gly Lys
 1 5 10 15

Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu
 20 25 30

Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val
 35 40 45

Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro
 50 55 60

Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met
 65 70 75 80

Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp
 85 90 95

Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala
 100 105 110

<210> 1276

<211> 766

<212> PRT

1303

<213> Homo sapiens

<400> 1276

Gly Asp Phe Ile Met Leu Arg Ala Gly Arg Arg Ala Pro Leu Pro Ser
 1 5 10 15
 Pro Pro Ser Leu Asp Ser Pro Gly Pro Gln Leu Met Pro Ser Pro Arg
 20 25 30
 Pro Val Leu Leu Arg Gly Ala Arg Ala Ala Leu Leu Leu Leu Leu Pro
 35 40 45
 Pro Arg Leu Leu Ala Arg Pro Ser Leu Leu Leu Arg Arg Ser Leu Ser
 50 55 60
 Ala Ala Ser Cys Ala Pro Ile Ser Leu Pro Ala Ala Ala Ser Arg Ser
 65 70 75 80
 Ser Met Asp Gly Ala Gly Ala Glu Glu Val Leu Ala Pro Leu Arg Leu
 85 90 95
 Ala Val Arg Gln Gln Gly Asp Leu Val Arg Lys Leu Lys Glu Asp Lys
 100 105 110
 Ala Pro Gln Val Asp Val Asp Lys Ala Val Ala Glu Leu Lys Ala Arg
 115 120 125
 Lys Arg Val Leu Glu Ala Lys Glu Leu Ala Leu Gln Pro Lys Asp Asp
 130 135 140
 Ile Val Asp Arg Ala Lys Met Glu Asp Thr Leu Lys Arg Arg Phe Phe
 145 150 155 160
 Tyr Asp Gln Ala Phe Ala Ile Tyr Gly Gly Val Ser Gly Leu Tyr Asp
 165 170 175
 Phe Gly Pro Val Gly Cys Ala Leu Lys Asn Asn Ile Ile Gln Thr Trp
 180 185 190
 Arg Gln His Phe Ile Gln Glu Glu Gln Ile Leu Glu Ile Asp Cys Thr
 195 200 205
 Met Leu Thr Pro Glu Pro Val Leu Lys Thr Ser Gly His Val Asp Lys
 210 215 220
 Phe Ala Asp Phe Met Val Lys Asp Val Lys Asn Gly Glu Cys Phe Arg
 225 230 235 240
 Ala Asp His Leu Leu Lys Ala His Leu Gln Lys Leu Met Ser Asp Lys
 245 250 255

1304

Lys Cys Ser Val Glu Lys Lys Ser Glu Met Glu Ser Val Leu Ala Gln
 260 265 270

Leu Asp Asn Tyr Gly Gln Gln Glu Leu Ala Asp Leu Phe Val Asn Tyr
 275 280 285

Asn Val Lys Ser Pro Ile Thr Gly Asn Asp Leu Ser Pro Pro Val Ser
 290 295 300

Phe Asn Leu Met Phe Lys Thr Phe Ile Gly Pro Gly Gly Asn Met Pro
 305 310 315 320

Gly Tyr Leu Arg Pro Glu Thr Ala Gln Gly Ile Phe Leu Asn Phe Lys
 325 330 335

Arg Leu Leu Glu Phe Asn Gln Gly Lys Leu Pro Phe Ala Ala Ala Gln
 340 345 350

Ile Gly Asn Ser Phe Arg Asn Glu Ile Ser Pro Arg Ser Gly Leu Ile
 355 360 365

Arg Val Arg Glu Phe Thr Met Ala Glu Ile Glu His Phe Val Asp Pro
 370 375 380

Ser Glu Lys Asp His Pro Lys Phe Gln Asn Val Ala Asp Leu His Leu
 385 390 395 400

Tyr Leu Tyr Ser Ala Lys Ala Gln Val Ser Gly Gln Ser Ala Arg Lys
 405 410 415

Met Arg Leu Gly Asp Ala Val Glu Gln Gly Val Ile Asn Asn Thr Val
 420 425 430

Leu Gly Tyr Phe Ile Gly Arg Ile Tyr Leu Tyr Leu Thr Lys Val Gly
 435 440 445

Ile Ser Pro Asp Lys Leu Arg Phe Arg Gln His Met Glu Asn Glu Met
 450 455 460

Ala His Tyr Ala Cys Asp Cys Trp Asp Ala Glu Ser Lys Thr Ser Tyr
 465 470 475 480

Gly Trp Ile Glu Ile Val Gly Cys Ala Asp Arg Ser Cys Tyr Asp Leu
 485 490 495

Ser Cys His Ala Arg Ala Thr Lys Val Pro Leu Val Ala Glu Lys Pro
 500 505 510

Leu Lys Glu Pro Lys Thr Val Asn Val Val Gln Phe Glu Pro Ser Lys
 515 520 525

1305

Gly Ala Ile Gly Lys Ala Tyr Lys Lys Asp Ala Lys Leu Val Met Glu
530 535 540

Tyr Leu Ala Ile Cys Asp Glu Cys Tyr Ile Thr Glu Met Glu Met Leu
545 550 555 560

Leu Asn Glu Lys Gly Glu Phe Thr Ile Glu Thr Glu Gly Lys Thr Phe
565 570 575

Gln Leu Thr Lys Asp Met Ile Asn Val Lys Arg Phe Gln Lys Thr Leu
580 585 590

Tyr Val Glu Glu Val Val Pro Asn Val Ile Glu Pro Ser Phe Gly Leu
595 600 605

Gly Arg Ile Met Tyr Thr Val Phe Glu His Thr Phe His Val Arg Glu
610 615 620

Gly Asp Glu Gln Arg Thr Phe Phe Ser Phe Pro Ala Val Val Ala Pro
625 630 635 640

Phe Lys Cys Ser Val Leu Pro Leu Ser Gln Asn Gln Glu Phe Met Pro
645 650 655

Phe Val Lys Glu Leu Ser Glu Ala Leu Thr Arg His Gly Val Ser His
660 665 670

Lys Val Asp Asp Ser Ser Gly Ser Ile Gly Arg Arg Tyr Ala Arg Thr
675 680 685

Asp Glu Ile Gly Val Ala Phe Gly Val Thr Ile Asp Phe Asp Thr Val
690 695 700

Asn Lys Thr Pro His Thr Ala Thr Leu Arg Asp Arg Asp Ser Met Arg
705 710 715 720

Gln Ile Arg Ala Glu Ile Ser Glu Leu Pro Ser Ile Val Gln Asp Leu
725 730 735

Ala Asn Gly Asn Ile Thr Trp Ala Asp Val Glu Ala Arg Tyr Pro Leu
740 745 750

Phe Glu Gly Gln Glu Thr Gly Lys Lys Glu Thr Ile Glu Glu
755 760 765

<210> 1277

<211> 386

<212> PRT

<213> Homo sapiens

1306

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1277

Leu Gly Ser Arg Gln Ala Ala Gly Thr Met Arg Gly Gln Arg Ser Leu
 1 5 10 15

Leu Leu Gly Pro Ala Arg Leu Cys Leu Arg Leu Leu Leu Leu Gly
 20 25 30

Tyr Arg Arg Arg Cys Pro Pro Leu Leu Arg Gly Leu Val Gln Arg Trp
 35 40 45

Arg Tyr Gly Lys Val Cys Leu Arg Ser Leu Leu Tyr Asn Ser Phe Gly
 50 55 60

Gly Ser Asp Thr Ala Val Asp Ala Ala Phe Xaa Pro Val Tyr Trp Leu
 65 70 75 80

Val Asp Asn Val Ile Arg Trp Phe Gly Val Val Phe Val Val Leu Val
 85 90 95

Ile Val Leu Thr Gly Ser Ile Val Ala Ile Ala Tyr Leu Cys Val Leu
 100 105 110

Pro Leu Ile Leu Arg Thr Tyr Ser Val Pro Arg Leu Cys Trp His Phe
 115 120 125

Phe Tyr Ser His Trp Asn Leu Ile Leu Ile Val Phe His Tyr Tyr Gln
 130 135 140

Ala Ile Thr Thr Pro Pro Gly Tyr Pro Pro Gln Gly Arg Asn Asp Ile
 145 150 155 160

Ala Thr Val Ser Ile Cys Lys Lys Cys Ile Tyr Pro Lys Pro Ala Arg
 165 170 175

Thr His His Cys Ser Ile Cys Asn Arg Cys Val Leu Lys Met Asp His
 180 185 190

His Cys Pro Trp Leu Asn Asn Cys Val Gly His Tyr Asn His Arg Tyr
 195 200 205

Phe Phe Ser Phe Cys Phe Phe Met Thr Leu Gly Cys Val Tyr Cys Ser
 210 215 220

Tyr Gly Ser Trp Asp Leu Phe Arg Glu Ala Tyr Ala Ala Ile Glu Lys
 225 230 235 240

1307

Met Lys Gln Leu Asp Lys Asn Lys Leu Gln Ala Val Ala Asn Gln Thr
 245 250 255

Tyr His Gln Thr Pro Pro Pro Thr Phe Ser Phe Arg Glu Arg Met Thr
 260 265 270

His Lys Ser Leu Val Tyr Leu Trp Phe Leu Cys Ser Ser Val Ala Leu
 275 280 285

Ala Leu Gly Ala Leu Thr Val Trp His Ala Val Leu Ile Ser Arg Gly
 290 295 300

Glu Thr Ser Ile Glu Arg His Ile Asn Lys Lys Glu Arg Arg Arg Leu
 305 310 315 320

Gln Ala Lys Gly Arg Val Phe Arg Asn Pro Tyr Asn Tyr Gly Cys Leu
 325 330 335

Asp Asn Trp Lys Val Phe Leu Gly Val Asp Thr Gly Arg His Trp Leu
 340 345 350

Thr Arg Val Leu Leu Pro Ser Ser His Leu Pro His Gly Asn Gly Met
 355 360 365

Ser Trp Glu Pro Pro Pro Trp Val Thr Ala His Ser Ala Ser Val Met
 370 375 380

Ala Val
 385

<210> 1278

<211> 164

<212> PRT

<213> Homo sapiens

<400> 1278

Val Lys Ala Ser Ala Glu Thr Pro Arg Pro Gln Pro Val Asp Lys Leu
 1 5 10 15

Glu Lys Ile Leu Glu Lys Leu Leu Thr Arg Phe Pro Gln Cys Asn Lys
 20 25 30

Ala Gln Met Thr Asn Ile Leu Gln Gln Ile Lys Thr Ala Arg Thr Thr
 35 40 45

Met Ala Gly Leu Thr Met Glu Glu Leu Ile Gln Leu Val Ala Ala Arg
 50 55 60

1308

Leu Ala Glu His Glu Arg Val Ala Ala Ser Thr Gln Pro Leu Gly Arg
 65 70 75 80
 Ile Arg Ala Leu Phe Pro Ala Pro Leu Ala Gln Ile Ser Thr Pro Met
 85 90 95
 Phe Leu Pro Ser Ala Gln Val Ser Tyr Pro Gly Arg Ser Ser His Ala
 100 105 110
 Pro Ala Thr Cys Lys Leu Cys Leu Met Cys Gln Lys Leu Val Gln Pro
 115 120 125
 Ser Glu Leu His Pro Met Ala Cys Thr His Val Leu His Lys Glu Cys
 130 135 140
 Ile Lys Phe Trp Ala Gln Thr Asn Thr Asn Asp Thr Cys Pro Phe Cys
 145 150 155 160
 Pro Thr Leu Lys

<210> 1279

<211> 469

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1279

Pro Val Ala Val Gly Arg Val Arg Val Thr Ala Glu Gly Arg Xaa Met
 1 5 10 15

Val Leu Gln Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala
 20 25 30

His Leu Leu Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly
 35 40 45

Leu Cys Gly Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro
 50 55 60

1309

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Ser | Ala | Ala | Ser | Ser | Val | Glu | Thr | Phe | Gly | Ala | Ala | Trp | Arg | 65 | 70 | 75 | 80 |
| Xaa | Pro | Gly | Ser | Ser | Lys | Gly | Cys | Gly | Glu | Gly | Cys | Gly | Pro | Gln | Gly | 85 | 90 | 95 | |
| Cys | Pro | Val | Cys | Leu | Ala | Glu | Glu | Thr | Ala | Pro | Tyr | Glu | Ser | Asn | Glu | 100 | 105 | 110 | |
| Ala | Cys | Gly | Gln | Leu | Arg | Asn | Pro | Gln | Gly | Pro | Phe | Ala | Thr | Cys | Gln | 115 | 120 | 125 | |
| Ala | Val | Leu | Ser | Pro | Ser | Glu | Tyr | Phe | Arg | Gln | Cys | Val | Tyr | Asp | Leu | 130 | 135 | 140 | |
| Cys | Ala | Gln | Lys | Gly | Asp | Lys | Ala | Phe | Leu | Cys | Arg | Ser | Leu | Ala | Ala | 145 | 150 | 155 | 160 |
| Tyr | Thr | Ala | Ala | Cys | Gln | Ala | Ala | Gly | Val | Ala | Val | Lys | Pro | Trp | Arg | 165 | 170 | 175 | |
| Thr | Asp | Ser | Phe | Cys | Pro | Leu | His | Cys | Pro | Ala | His | Ser | His | Tyr | Ser | 180 | 185 | 190 | |
| Ile | Cys | Thr | Arg | Thr | Cys | Gln | Gly | Ser | Cys | Ala | Ala | Leu | Ser | Gly | Leu | 195 | 200 | 205 | |
| Thr | Gly | Cys | Thr | Thr | Arg | Cys | Phe | Glu | Gly | Cys | Glu | Cys | Asp | Asp | Arg | 210 | 215 | 220 | |
| Phe | Leu | Leu | Ser | Gln | Gly | Val | Cys | Ile | Pro | Val | Gln | Asp | Cys | Gly | Cys | 225 | 230 | 235 | 240 |
| Thr | His | Asn | Gly | Arg | Tyr | Leu | Pro | Val | Asn | Ser | Ser | Leu | Leu | Thr | Ser | 245 | 250 | 255 | |
| Asp | Cys | Ser | Glu | Arg | Cys | Ser | Cys | Ser | Ser | Ser | Ser | Gly | Leu | Thr | Cys | 260 | 265 | 270 | |
| Gln | Ala | Ala | Gly | Cys | Pro | Pro | Gly | Arg | Val | Cys | Glu | Val | Lys | Ala | Glu | 275 | 280 | 285 | |
| Ala | Arg | Asn | Cys | Trp | Ala | Thr | Arg | Gly | Leu | Cys | Val | Leu | Ser | Val | Gly | 290 | 295 | 300 | |
| Ala | Asn | Leu | Thr | Thr | Phe | Asp | Gly | Ala | Arg | Gly | Ala | Thr | Thr | Ser | Pro | 305 | 310 | 315 | 320 |
| Gly | Val | Tyr | Glu | Leu | Ser | Ser | Arg | Cys | Pro | Gly | Leu | Gln | Asn | Thr | Ile | 325 | 330 | 335 | |

1310

Pro Trp Tyr Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr
 340 345 350

Glu Ala Val Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr
 355 360 365

Leu Thr Pro Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu
 370 375 380

Pro Ala Glu Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly
 385 390 395 400

Ser Leu Leu Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala
 405 410 415

Asn Gly Lys Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu
 420 425 430

Cys Gly Ala Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His
 435 440 445

Asp Ser Gln Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe
 450 455 460

Ser Pro Cys Tyr Gly
 465

<210> 1280

<211> 223

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1280

Gly Pro Arg Ala Leu Trp Pro Pro Pro Glu Val Gly Trp Gly Cys Ser
 1 5 10 15

Pro Asn Pro Thr Leu Leu Pro Pro Leu Ser His Phe Pro Leu Leu Arg
 20 25 30

1311

Trp Gly Thr Asn Asn Lys Glu Leu Thr Leu Pro Ala Pro Asn Pro Pro
 35 40 45
 Pro Ala Pro Pro Cys Pro Pro Arg Phe Trp Phe His Phe Ser Ser Val
 50 55 60
 His Lys Leu Pro Leu Asp Ser Cys Val Val Phe Cys Ser Met Phe His
 65 70 75 80
 Ser Ser Thr Ser Val Ile Ala Ala Ala Thr Ser Ala Lys Cys Ser Ser
 85 90 95
 Ser Leu Pro Pro Val Leu Pro Thr Ile Pro Ser Pro Lys Ile Leu Phe
 100 105 110
 Val Gly Lys Arg Gly Trp Gly Met Ala Gly Trp Val Thr Asp Tyr Pro
 115 120 125
 Ser Pro Arg Glu Gly Gly Ala Leu Pro Leu Gly Cys Cys Ser Arg Val
 130 135 140
 Ser Lys Gly Ala Arg Ile Asp His Lys Gly Cys Arg Gly His Leu Leu
 145 150 155 160
 Pro Leu Phe Cys Trp Gly Gly Val Ala Met Ile Cys Pro Ser Leu Gly
 165 170 175
 Leu Pro Leu Trp Phe Pro Ile Cys Ser Tyr Leu Asn Lys Lys Asn Ile
 180 185 190
 Leu Phe Trp Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 195 200 205
 Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Gly Gly Ala Pro Pro Pro
 210 215 220

<210> 1281

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1281

Thr Gln Ser Lys Trp Arg Leu Glu Val Gln Cys Gly Lys Glu Lys Gln
 1 5 10 15

1312

Val Phe Ile Glu Ser Thr Asn Ser Thr Pro Phe Lys Asn Phe Xaa Gly
 20 25 30

Thr Gln Pro Lys Gly
 35

<210> 1282

<211> 458

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1282

Gly Pro Gln Arg Leu Ser Pro Gly Ala Met Leu Pro Ala Ala Thr Ala
 1 5 10 15

Ser Leu Leu Gly Pro Leu Leu Thr Ala Cys Ala Leu Leu Pro Phe Ala
 20 25 30

Gln Gly Gln Thr Pro Asn Tyr Thr Arg Pro Val Phe Leu Cys Gly Gly
 35 40 45

Asp Val Lys Gly Glu Ser Gly Tyr Val Ala Ser Glu Gly Phe Pro Asn
 50 55 60

Leu Tyr Pro Pro Asn Lys Glu Cys Ile Trp Thr Ile Thr Val Pro Glu
 65 70 75 80

Gly Gln Thr Val Ser Leu Ser Phe Arg Val Phe Asp Leu Glu Leu His
 85 90 95

Pro Ala Cys Arg Tyr Asp Ala Leu Glu Val Phe Ala Gly Ser Gly Thr
 100 105 110

Ser Gly Gln Arg Leu Gly Arg Phe Cys Gly Thr Phe Arg Pro Ala Pro
 115 120 125

Leu Val Ala Pro Gly Asn Gln Val Thr Leu Arg Met Thr Thr Asp Glu
 130 135 140

Gly Thr Gly Gly Arg Gly Phe Leu Leu Trp Tyr Ser Gly Arg Ala Thr
 145 150 155 160

Ser Gly Thr Glu His Gln Phe Cys Gly Gly Arg Leu Glu Lys Ala Gln

1313

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Gly Thr Leu Thr Thr Pro Asn Trp Pro Glu Ser Asp Tyr Pro Pro Gly | | | | | |
| | 180 | | 185 | | 190 |
| Ile Ser Cys Ser Trp His Ile Ile Ala Pro Pro Asp Gln Val Ile Ala | | | | | |
| | 195 | | 200 | | 205 |
| Leu Thr Phe Glu Lys Phe Asp Leu Glu Pro Asp Thr Tyr Cys Arg Tyr | | | | | |
| | 210 | | 215 | | 220 |
| Asp Ser Val Ser Val Phe Asn Gly Ala Val Ser Asp Asp Ser Arg Arg | | | | | |
| | 225 | | 230 | | 235 |
| Leu Gly Lys Phe Cys Gly Asp Ala Xaa Pro Gly Ser Ile Ser Ser Glu | | | | | |
| | 245 | | 250 | | 255 |
| Gly Asn Glu Leu Leu Val Gln Phe Val Ser Asp Leu Ser Val Thr Ala | | | | | |
| | 260 | | 265 | | 270 |
| Asp Gly Phe Ser Ala Ser Tyr Lys Thr Leu Pro Arg Gly Thr Ala Lys | | | | | |
| | 275 | | 280 | | 285 |
| Glu Gly Gln Gly Pro Gly Pro Lys Arg Gly Thr Glu Pro Lys Val Lys | | | | | |
| | 290 | | 295 | | 300 |
| Leu Pro Pro Lys Ser Gln Pro Pro Glu Lys Thr Glu Glu Ser Pro Ser | | | | | |
| | 305 | | 310 | | 315 |
| Ala Pro Asp Ala Pro Thr Cys Pro Lys Gln Cys Arg Arg Thr Gly Thr | | | | | |
| | 325 | | 330 | | 335 |
| Leu Gln Ser Asn Phe Cys Ala Ser Ser Leu Val Val Thr Ala Thr Val | | | | | |
| | 340 | | 345 | | 350 |
| Lys Ser Met Val Arg Glu Pro Gly Glu Gly Leu Ala Val Thr Val Ser | | | | | |
| | 355 | | 360 | | 365 |
| Leu Ile Gly Ala Tyr Lys Thr Gly Gly Leu Asp Leu Pro Ser Pro Pro | | | | | |
| | 370 | | 375 | | 380 |
| Thr Gly Ala Ser Leu Lys Phe Tyr Val Pro Cys Lys Gln Cys Pro Pro | | | | | |
| | 385 | | 390 | | 395 |
| Met Lys Lys Gly Val Ser Tyr Leu Leu Met Gly Gln Val Glu Glu Asn | | | | | |
| | 405 | | 410 | | 415 |
| Arg Gly Pro Val Leu Pro Pro Glu Ser Phe Val Val Leu His Arg Pro | | | | | |
| | 420 | | 425 | | 430 |
| Asn Gln Asp Gln Ile Leu Thr Asn Leu Ser Lys Arg Lys Cys Pro Ser | | | | | |

1314

435

440

445

Gln Pro Val Arg Ala Ala Ala Ser Gln Asp
450 455

<210> 1283

<211> 229

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (154)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1283

Cys Arg Ala Pro Leu Gly Ala Gly Leu Ser Pro Ala Val Arg Arg Gln
1 5 10 15

Glu Pro Pro Phe Pro Leu Gly Val Thr Arg Gly Trp Gly Arg Trp Pro
20 25 30

Ile Gln Lys Arg Arg Glu Gly Ala Arg Pro Val Pro Xaa Ser Glu Arg
35 40 45

Ser Gln Glu Asp Gly Arg Gly Pro Ala Ala Arg Ser Ser Gly Thr Leu
50 55 60

Trp Arg Ile Arg Thr Arg Leu Ser Leu Cys Arg Asp Pro Glu Pro Pro
65 70 75 80

Pro Pro Leu Cys Leu Leu Arg Val Ser Leu Leu Cys Ala Leu Arg Ala
85 90 95

Gly Gly Arg Gly Ser Arg Trp Gly Glu Asp Gly Ala Arg Leu Leu Leu
100 105 110

Leu Pro Pro Ala Arg Ala Ala Gly Asn Gly Glu Ala Glu Pro Ser Gly
115 120 125

1315

Gly Pro Ser Tyr Ala Gly Arg Met Leu Glu Ser Ser Gly Cys Lys Ala
 130 135 140
 Leu Lys Glu Gly Val Leu Glu Lys Arg Xaa Xaa Gly Cys Cys Ser Ser
 145 150 155 160
 Gly Arg Lys Ser Val Ala Ser Ser Pro Arg Lys Gly Cys Cys Leu Ser
 165 170 175
 Arg Pro Ser Ser Cys Asn Thr Ser Ser Ser Ser Asn Ser Ser Ser Ser
 180 185 190
 Ser Ser Asn Asn Ser Pro Gly Arg Gly Arg Pro Ser Arg Pro Asn Pro
 195 200 205
 Val Ala Pro Leu Ser Pro Ala Ser Ser Arg Arg Ser Ser Ser Arg Asn
 210 215 220
 Cys Thr Ser Pro Thr
 225

<210> 1284

<211> 390

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1284

Thr Ser Val Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu
 1 5 10 15
 Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser
 20 25 30
 Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe
 35 40 45
 Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu
 50 55 60
 Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu
 65 70 75 80
 Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|
| | 85 | | | | | | | 90 | | | | | | | 95 | | | | | |
| Glu | Cys | Leu | His | Ser | Phe | Cys | Lys | Thr | Cys | Ile | Val | Arg | Tyr | Leu | Glu | | | | | |
| | | | 100 | | | | | 105 | | | | | | 110 | | | | | | |
| Thr | Ser | Lys | Tyr | Cys | Pro | Ile | Cys | Asp | Val | Gln | Val | His | Lys | Thr | Arg | | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | | |
| Pro | Leu | Leu | Asn | Ile | Arg | Ser | Asp | Lys | Thr | Leu | Gln | Asp | Ile | Val | Tyr | | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | | |
| Lys | Leu | Val | Pro | Gly | Leu | Phe | Lys | Asn | Glu | Met | Lys | Arg | Arg | Arg | Asp | | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | | |
| Phe | Tyr | Ala | Ala | His | Pro | Ser | Ala | Asp | Ala | Ala | Asn | Gly | Ser | Asn | Glu | | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | | |
| Asp | Arg | Gly | Glu | Val | Ala | Asp | Glu | Asp | Lys | Arg | Ile | Ile | Thr | Asp | Asp | | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | | |
| Glu | Ile | Ile | Ser | Leu | Ser | Ile | Glu | Phe | Phe | Asp | Gln | Asn | Arg | Leu | Asp | | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | | |
| Arg | Lys | Val | Asn | Lys | Asp | Lys | Glu | Lys | Ser | Lys | Glu | Glu | Val | Asn | Asp | | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | | |
| Lys | Arg | Tyr | Leu | Arg | Cys | Pro | Ala | Ala | Met | Thr | Val | Met | His | Leu | Arg | | | | | |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 | | | | | |
| Lys | Phe | Leu | Arg | Ser | Lys | Met | Asp | Ile | Pro | Asn | Thr | Phe | Gln | Ile | Asp | | | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | | |
| Val | Met | Tyr | Glu | Glu | Glu | Pro | Leu | Lys | Asp | Tyr | Tyr | Thr | Leu | Met | Asp | | | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | | | |
| Ile | Ala | Tyr | Ile | Tyr | Thr | Trp | Arg | Arg | Asn | Gly | Pro | Leu | Pro | Leu | Lys | | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | | | |
| Tyr | Arg | Val | Arg | Pro | Thr | Cys | Lys | Arg | Met | Lys | Ile | Ser | His | Gln | Arg | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | | |
| Asp | Gly | Leu | Thr | Asn | Ala | Gly | Glu | Leu | Glu | Ser | Asp | Ser | Gly | Ser | Asp | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | | |
| Lys | Ala | Asn | Ser | Pro | Ala | Gly | Gly | Ile | Pro | Ser | Thr | Ser | Ser | Cys | Leu | | | | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | | | | |
| Pro | Ser | Pro | Ser | Thr | Pro | Val | Gln | Ser | Pro | His | Pro | Gln | Phe | Pro | His | | | | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | | | | |
| Ile | Ser | Ser | Thr | Met | Asn | Gly | Thr | Ser | Asn | Ser | Pro | Ser | Gly | Asn | His | | | | | |

1317

355 360 365
Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser
370 375 380

Ser Ala Thr Ser Ser Gly
385 390

<210> 1285
<211> 39
<212> PRT
<213> Homo sapiens

<400> 1285
His Ala Ser Ala Gly Ser Gln Leu Phe Glu Met His Glu Lys Leu Ser
1 5 10 15

Cys Met Ala Asn Ser Val Ile Lys Asn Leu Gln Ser Arg Trp Arg Ser
20 25 30

Pro Ser His Glu Asn Ser Ile
35

<210> 1286
<211> 453
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring L-amino acids

1318

<400> 1286

```

Arg Arg Ser Val Ile Cys Asp Ser Asn Ala Thr Ala Leu Glu Leu Pro
 1           5           10           15

Gly Leu Pro Leu Ser Leu Pro Gln Pro Ser Ile Pro Ala Ala Val Pro
      20           25           30

Gln Ser Ala Pro Pro Xaa Pro His Arg Glu Glu Thr Val Thr Ala Thr
      35           40           45

Ala Thr Ser Gln Val Ala Gln Gln Pro Pro Ala Ala Ala Pro Gly
      50           55           60

Glu Gln Ala Val Ala Gly Pro Ala Pro Arg Leu Ser Pro Ala Val Pro
      65           70           75           80

Ala Lys Thr Ala Gln Cys Pro Ser Leu Ala Leu Trp Gly Ala Lys Arg
      85           90           95

Ser Arg Arg Arg Xaa Lys Val Ala Ala Ala Ala Gln Ala Xaa Lys Glu
      100           105           110

Pro Gln Glu Glu Arg Ser Gln Gln Gln Asp Asp Ile Glu Glu Leu Glu
      115           120           125

Thr Lys Ala Val Gly Met Ser Asn Asp Gly Arg Phe Leu Lys Phe Asp
      130           135           140

Ile Glu Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Lys Gly Leu Asp
      145           150           155           160

Thr Glu Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Asp Arg Lys
      165           170           175

Leu Thr Lys Ser Glu Arg Gln Arg Phe Lys Glu Glu Ala Glu Met Leu
      180           185           190

Lys Gly Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Glu
      195           200           205

Ser Thr Val Lys Gly Lys Lys Cys Ile Val Leu Val Thr Glu Leu Met
      210           215           220

Thr Ser Gly Thr Leu Lys Thr Tyr Leu Lys Arg Phe Lys Val Met Lys
      225           230           235           240

Ile Lys Val Leu Arg Ser Trp Cys Arg Gln Ile Leu Lys Gly Leu Gln
      245           250           255

Phe Leu His Thr Arg Thr Pro Pro Ile Ile His Arg Asp Leu Lys Cys

```

1319

| | | |
|---|-------------------------------------|-----|
| 260 | 265 | 270 |
| Asp Asn Ile Phe Ile Thr Gly | Pro Thr Gly Ser Val Lys Xaa Gly Asp | |
| 275 | 280 | 285 |
| Leu Gly Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile | | |
| 290 | 295 | 300 |
| Gly Thr Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp | | |
| 305 | 310 | 315 |
| Glu Ser Val Asp Val Tyr Ala Phe Gly Met Cys Met Leu Glu Met Ala | | |
| 325 | 330 | 335 |
| Thr Ser Glu Tyr Pro Tyr Ser Glu Cys Gln Asn Ala Ala Gln Ile Tyr | | |
| 340 | 345 | 350 |
| Arg Arg Val Thr Ser Gly Val Lys Pro Ala Ser Phe Asp Lys Val Ala | | |
| 355 | 360 | 365 |
| Ile Pro Glu Val Lys Glu Ile Ile Glu Gly Cys Ile Arg Gln Asn Lys | | |
| 370 | 375 | 380 |
| Asp Glu Arg Tyr Ser Ile Lys Asp Leu Leu Asn His Ala Phe Phe Gln | | |
| 385 | 390 | 395 |
| Glu Glu Thr Gly Val Arg Val Glu Leu Ala Glu Glu Asp Asp Gly Glu | | |
| 405 | 410 | 415 |
| Lys Ile Ala Ile Lys Leu Trp Leu Arg Ile Glu Asp Ile Lys Lys Leu | | |
| 420 | 425 | 430 |
| Lys Gly Lys Tyr Lys Asp Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys | | |
| 435 | 440 | 445 |
| Asn Thr His Arg Ala | | |
| 450 | | |

<210> 1287

<211> 450

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1320

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (193)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (314)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (326)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (344)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1287

Ala Ala Glu Val Leu Cys Pro Ser Cys Phe Pro Ile Ser Pro Ala Pro

1

5

10

15

Trp Met Thr Val Gly Pro Ala Ser Ala Leu Phe Pro Cys Gln Thr Pro

20

25

30

Xaa Phe Pro Trp Thr Glu Trp Asn Xaa Trp Xaa Phe Thr Ala His Val

35

40

45

Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val Arg Glu Tyr Val

50

55

60

Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu Asn Leu Thr Val Arg

65

70

75

80

Ile Asp Ile Met Glu Lys Asp Thr Ile Ser Tyr Thr Glu Leu Asp Phe

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
| Glu | Leu | Ile | Lys | Val | Glu | Val | Lys | Glu | Met | Glu | Lys | Leu | Val | Ile | Gln | | | | |
| | | | 100 | | | | | 105 | | | | 110 | | | | | | | |
| Leu | Lys | Glu | Xaa | Phe | Gly | Gly | Ser | Ser | Glu | Ile | Val | Asp | Gln | Leu | Glu | | | | |
| | | | 115 | | | | 120 | | | | 125 | | | | | | | | |
| Val | Glu | Ile | Arg | Asn | Met | Thr | Leu | Leu | Val | Glu | Lys | Leu | Glu | Thr | Leu | | | | |
| | | | 130 | | | | 135 | | | | 140 | | | | | | | | |
| Asp | Lys | Asn | Asn | Val | Leu | Ala | Ile | Arg | Arg | Glu | Ile | Val | Ala | Leu | Lys | | | | |
| 145 | | | | 150 | | | | | | 155 | | | 160 | | | | | | |
| Thr | Lys | Leu | Lys | Glu | Cys | Glu | Ala | Ser | Lys | Asp | Gln | Asn | Thr | Pro | Val | | | | |
| | | | 165 | | | | | | 170 | | | 175 | | | | | | | |
| Val | His | Pro | Pro | Pro | Thr | Pro | Gly | Ser | Cys | Gly | His | Gly | Gly | Val | Val | | | | |
| | | | 180 | | | | | | 185 | | | 190 | | | | | | | |
| Xaa | Ile | Ser | Lys | Pro | Ser | Val | Val | Gln | Leu | Asn | Trp | Arg | Gly | Phe | Ser | | | | |
| | | | 195 | | | 200 | | | | | | 205 | | | | | | | |
| Tyr | Leu | Tyr | Gly | Ala | Trp | Gly | Arg | Asp | Tyr | Ser | Pro | Gln | His | Pro | Asn | | | | |
| 210 | | | | | | 215 | | | | | | 220 | | | | | | | |
| Lys | Gly | Leu | Tyr | Trp | Val | Ala | Pro | Leu | Asn | Thr | Asp | Gly | Arg | Leu | Leu | | | | |
| 225 | | | 230 | | | | | | 235 | | | | | | 240 | | | | |
| Glu | Tyr | Tyr | Arg | Leu | Tyr | Asn | Thr | Leu | Asp | Asp | Leu | Leu | Leu | Tyr | Ile | | | | |
| | | | 245 | | | | | | 250 | | | | | | 255 | | | | |
| Asn | Ala | Arg | Glu | Leu | Arg | Ile | Thr | Tyr | Gly | Gln | Gly | Ser | Gly | Thr | Ala | | | | |
| | | | 260 | | | | | | 265 | | | 270 | | | | | | | |
| Val | Tyr | Asn | Asn | Asn | Met | Tyr | Val | Asn | Met | Tyr | Asn | Thr | Gly | Asn | Ile | | | | |
| | | | 275 | | | 280 | | | | | | 285 | | | | | | | |
| Ala | Arg | Val | Asn | Leu | Thr | Thr | Asn | Thr | Ile | Ala | Val | Thr | Gln | Thr | Leu | | | | |
| 290 | | | | | | 295 | | | | | | 300 | | | | | | | |
| Pro | Asn | Ala | Ala | Tyr | Asn | Asn | Arg | Phe | Xaa | Tyr | Ala | Asn | Val | Ala | Trp | | | | |
| 305 | | | 310 | | | | | | 315 | | | | | | 320 | | | | |
| Gln | Asp | Ile | Asp | Phe | Xaa | Val | Asp | Glu | Asn | Gly | Leu | Trp | Val | Ile | Tyr | | | | |
| | | | 325 | | | | | | 330 | | | | | | 335 | | | | |
| Ser | Thr | Glu | Ala | Ser | Thr | Gly | Xaa | Met | Val | Ile | Ser | Lys | Leu | Asn | Asp | | | | |
| | | | 340 | | | 345 | | | | | | 350 | | | | | | | |
| Thr | Thr | Leu | Gln | Val | Leu | Asn | Thr | Trp | Tyr | Thr | Lys | Gln | Tyr | Lys | Pro | | | | |

1322

355 360 365
 Ser Ala Ser Asn Ala Phe Met Val Cys Gly Val Leu Tyr Ala Thr Arg
 370 375 380
 Thr Met Asn Thr Arg Thr Glu Glu Ile Phe Tyr Tyr Tyr Asp Thr Asn
 385 390 395 400
 Thr Gly Lys Glu Gly Lys Leu Asp Ile Val Met His Lys Met Gln Glu
 405 410 415
 Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe Asp Gln Lys Leu Tyr Val
 420 425 430
 Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp Leu Ser Val Leu Gln Lys
 435 440 445
 Pro Gln
 450

<210> 1288
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 1288
 Leu Gln Gln Ala Leu Pro Asn Asn Gly Leu Leu Phe Thr Trp Thr Leu
 1 5 10 15
 Ser Lys Glu Gly Gly Arg Glu Gly Gln Ser Gly Val Ser Phe Gln His
 20 25 30
 Ser Ser Gln Lys Gly Glu Arg Phe Ser Gly Trp Cys His Ala Ile Gly
 35 40 45
 Ile Lys Gln Glu Ala His Gly Trp Leu Leu Asn Glu Glu Gln Asn Leu
 50 55 60
 Gly Ala Leu Trp Leu Thr Thr Ala Ile Cys Gly Ala Gly Thr His Thr
 65 70 75 80
 Ser Arg Gln Leu Gln Phe Cys Thr Phe Ser Leu Leu Asp Ser Lys Ser
 85 90 95
 Arg Cys Cys Leu Ala Ala Leu Arg Gly His Ser Leu Leu Arg Arg Ala
 100 105 110
 Leu Gln Ser Pro Ala Pro Gly Leu Gly Glu Trp Met Arg Leu Leu Pro
 115 120 125

1323

Tyr Asp Thr Cys Gln Asp Ala Leu Pro Pro Pro Leu Lys Val Gly Pro
 130 135 140

Gly Gln His Cys Ser Leu Leu Ser Ala Phe Ser Gly Leu Arg Ser Gln
 145 150 155 160

Tyr Glu Leu Pro

<210> 1289

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1289

Trp Met Ser Glu Tyr Xaa Gln Trp Val Phe Leu Ile Ser Leu Arg Ile
 1 5 10 15

Cys Leu Arg Val His Tyr Gln Gly Ile Ser Gly Thr Arg Xaa His Ser
 20 25 30

Leu His Gln Phe Leu Arg Val Leu
 35 40

<210> 1290

<211> 266

<212> PRT

<213> Homo sapiens

<400> 1290

Asp Ile Met Glu Ser Gly Phe Thr Ser Lys Asp Thr Tyr Leu Ser His
 1 5 10 15

Phe Asn Pro Arg Asp Tyr Leu Glu Lys Tyr Tyr Lys Phe Gly Ser Arg
 20 25 30

1324

His Ser Ala Glu Ser Gln Ile Leu Lys His Leu Leu Lys Asn Leu Phe
 35 40 45

Lys Ile Phe Cys Leu Asp Gly Val Lys Gly Asp Leu Leu Ile Asp Ile
 50 55 60

Gly Ser Gly Pro Thr Ile Tyr Gln Leu Leu Ser Ala Cys Glu Ser Phe
 65 70 75 80

Lys Glu Ile Val Val Thr Asp Tyr Ser Asp Gln Asn Leu Gln Glu Leu
 85 90 95

Glu Lys Trp Leu Lys Lys Glu Pro Glu Ala Phe Asp Trp Ser Pro Val
 100 105 110

Val Thr Tyr Val Cys Asp Leu Glu Gly Asn Arg Val Lys Gly Pro Glu
 115 120 125

Lys Glu Glu Lys Leu Arg Gln Ala Val Lys Gln Val Leu Lys Cys Asp
 130 135 140

Val Thr Gln Ser Gln Pro Leu Gly Ala Val Pro Leu Pro Pro Ala Asp
 145 150 155 160

Cys Val Leu Ser Thr Leu Cys Leu Asp Ala Ala Cys Pro Asp Leu Pro
 165 170 175

Thr Tyr Cys Arg Ala Leu Arg Asn Leu Gly Ser Leu Leu Lys Pro Gly
 180 185 190

Gly Phe Leu Val Ile Met Asp Ala Leu Lys Ser Ser Tyr Tyr Met Ile
 195 200 205

Gly Glu Gln Lys Phe Ser Ser Leu Pro Leu Gly Arg Glu Ala Val Glu
 210 215 220

Ala Ala Val Lys Glu Ala Gly Tyr Thr Ile Glu Trp Phe Glu Val Ile
 225 230 235 240

Ser Gln Ser Tyr Ser Ser Thr Met Ala Asn Asn Glu Gly Leu Phe Ser
 245 250 255

Leu Val Ala Arg Lys Leu Ser Arg Pro Leu
 260 265

<210> 1291

<211> 112

<212> PRT

<213> Homo sapiens

1325

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1291

Cys Gly Ser Thr Ile Leu Gln Gly Pro Gln Lys Ala Leu Arg Arg Gly
 1 5 10 15

Leu Gly Glu Val Gly Asp Gln Gly Lys Ser Arg Gln Arg Ala Ser Lys
 20 25 30

Arg Leu Phe Ala Ser Lys Ala Leu Arg Gly His Leu Arg Pro Val Arg
 35 40 45

Gly Gln Gln Pro Gly Arg Xaa Gly Ser Asp Glu Asn Glu Glu Ser Ser
 50 55 60

Val Val Asp Tyr Val Glu Val Thr Val Gly Glu Glu Asp Ala Ile Ser
 65 70 75 80

Asp Arg Ser Asp Ser Trp Ser Gln Ala Ala Ala Glu Gly Val Ser Glu
 85 90 95

Leu Ala Glu Ser Asp Ser Asp Cys Val Pro Ala Glu Ala Gly Gln Ala
 100 105 110

<210> 1292

<211> 217

<212> PRT

<213> Homo sapiens

<400> 1292

Gly Ser Thr His Ala Ser Gly Thr Met Arg Ala Ala Ala Ile Ser Thr
 1 5 10 15

Pro Lys Leu Asp Lys Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys
 20 25 30

Glu Leu Lys Gly Thr Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys
 35 40 45

Arg Arg Pro Lys Thr Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser
 50 55 60

1326

Met Ile Pro His Leu Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp
 65 70 75 80
 Val Leu Ser Ala Ala Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys
 85 90 95
 Leu Leu Ala Asn Gln Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys
 100 105 110
 Ser Glu Phe Ser Glu Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp
 115 120 125
 Tyr Lys Lys Thr Glu Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile
 130 135 140
 Tyr Lys Ala Phe Val His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp
 145 150 155 160
 Phe Arg Thr Arg Glu Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro
 165 170 175
 Thr Cys Phe Asp Glu Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys
 180 185 190
 Asp Ser Tyr Pro Arg Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu
 195 200 205
 Asn Asp Leu Gln Ala Asn Ser Leu Lys
 210 215

<210> 1293

<211> 235

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (229)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1293

Leu His Leu Leu Ala Val Leu Glu Lys Met Ile Ser Gln Gly Asn Asn
 1 5 10 15
 Asn Lys Asn Gly Lys Asn Glu Thr Gly Asn Asn Asn Asn Lys Asp Gly
 20 25 30
 Ser Asn His Lys Ala Glu Ser Gly Ala Leu Ile Glu Ala Ala Lys Ser
 35 40 45

1327

Lys Ile His Gln Tyr Lys Val Arg Ala Tyr Ile Gln Met Lys Ser Leu
 50 55 60
 Lys Ala Cys Lys Arg Glu Ile Lys Ser Val Met Asn Thr Ala Gly Asn
 65 70 75 80
 Ser Ala Pro Ser Leu Phe Leu Lys Ser Asn Phe Glu Tyr Leu Arg Gly
 85 90 95
 Asn Tyr Arg Lys Ala Val Lys Leu Leu Asn Ser Ser Asn Ile Ala Glu
 100 105 110
 His Pro Gly Phe Met Lys Thr Gly Glu Cys Leu Arg Cys Met Phe Trp
 115 120 125
 Asn Asn Leu Gly Cys Ile His Phe Ala Met Ser Lys His Asn Leu Gly
 130 135 140
 Ile Phe Tyr Phe Lys Lys Ala Leu Gln Glu Asn Asp Asn Val Cys Ala
 145 150 155 160
 Gln Leu Ser Ala Gly Ser Thr Asp Pro Gly Lys Lys Phe Ser Gly Arg
 165 170 175
 Pro Met Cys Thr Leu Leu Thr Asn Lys Arg Tyr Glu Leu Leu Tyr Asn
 180 185 190
 Cys Gly Ile Gln Leu Leu His Ile Gly Arg Pro Leu Ala Ala Phe Glu
 195 200 205
 Cys Leu Ile Glu Ala Val Gln Val Tyr His Ala Asn Pro Arg Leu Trp
 210 215 220
 Leu Arg Leu Ala Xaa Met Leu His Cys Cys Gln
 225 230 235

<210> 1294

<211> 275

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1328

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1294

Ala Arg Gly Ala Arg Gly Arg Ala Leu Pro Ala Ser Gly Lys Ala Gly
 1 5 10 15

Arg Ala Arg Gly Ser Ala Xaa Gly Ser Ala Ala Arg Gly His Trp Ser
 20 25 30

Leu Ala Arg Phe Pro Ala Pro Arg Gly Ser His Leu Pro Ala Arg Arg
 35 40 45

Xaa Xaa Gly Arg Val Ser Thr Pro Ile Leu Arg Pro Val Ser Ser Ile
 50 55 60

Pro Leu Ala Leu Ser Arg Glu Ser Arg Thr Ala Glu Glu Ser Ser Leu
 65 70 75 80

Thr Pro Gln Pro Gln Val Gly Leu Val His Ile Met Thr Ser Phe Glu
 85 90 95

Asp Ala Asp Thr Glu Glu Thr Val Thr Cys Leu Gln Met Thr Val Tyr
 100 105 110

His Pro Gly Gln Leu Gln Cys Gly Ile Phe Gln Ser Ile Ser Phe Asn
 115 120 125

Arg Glu Lys Leu Pro Ser Ser Glu Val Val Lys Phe Gly Arg Asn Ser
 130 135 140

Asn Ile Cys His Tyr Thr Phe Gln Asp Lys Gln Val Ser Arg Val Gln
 145 150 155 160

Phe Ser Leu Gln Leu Phe Lys Lys Phe Asn Ser Ser Val Leu Ser Phe
 165 170 175

Glu Ile Lys Asn Met Ser Lys Lys Thr Asn Leu Ile Val Asp Ser Arg
 180 185 190

Glu Leu Gly Tyr Leu Asn Lys Met Asp Leu Pro Tyr Arg Cys Met Val
 195 200 205

Arg Phe Gly Glu Tyr Gln Phe Leu Met Glu Lys Glu Asp Gly Glu Ser
 210 215 220

1329

Leu Glu Phe Phe Glu Thr Gln Phe Ile Leu Ser Pro Arg Ser Leu Leu
 225 230 235 240

Gln Glu Asn Asn Trp Pro Pro His Arg Pro Ile Pro Glu Tyr Gly Thr
 245 250 255

Tyr Ser Leu Cys Ser Ser Gln Ser Ser Ser Pro Thr Glu Met Asp Glu
 260 265 270

Asn Glu Ser
 275

<210> 1295

<211> 677

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1295

Met Thr Arg Leu Pro Lys Leu Trp Ala Arg Pro Ala Gly Lys Ala Leu
 1 5 10 15

Val Ser Pro Val Val Gln Asn Ile Thr Ser Pro Asp Glu Asp Gly Ile
 20 25 30

Ser Pro Leu Gly Trp Leu Leu Asp Gln Tyr Leu Glu Cys Gln Glu Ala
 35 40 45

Val Phe Asn Pro Gln Ser Arg Gly Pro Ala Phe Phe Ser Arg Val Arg
 50 55 60

Arg Leu Thr His Leu Leu Val His Val Glu Pro Cys Glu Ala Pro Pro
 65 70 75 80

Pro Val Val Ala Thr Pro Arg Pro Lys Gly Arg Asn Arg Ser His Asp
 85 90 95

Trp Ser Ser Leu Ala Thr Arg Gly Leu Pro Ser Ser Ile Met Arg Asn
 100 105 110

1330

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Arg | Cys | Trp | Arg | Ala | Val | Val | Glu | Lys | Gln | Val | Asn | Asn | Phe | 115 | 120 | 125 |
| Leu | Thr | Ser | Ser | Trp | Arg | Asp | Asp | Asp | Phe | Val | Pro | Arg | Tyr | Cys | Xaa | 130 | 135 | 140 |
| His | Phe | Asn | Ile | Leu | Gln | Asn | Ser | Ser | Ser | Glu | Leu | Phe | Gly | Pro | Arg | 145 | 150 | 155 |
| Xaa | Ala | Phe | Leu | Leu | Ala | Leu | Gln | Asn | Gly | Cys | Ala | Gly | Ala | Leu | Leu | 165 | 170 | 175 |
| Lys | Leu | Pro | Phe | Leu | Lys | Ala | Ala | His | Val | Ser | Glu | Gln | Phe | Ala | Arg | 180 | 185 | 190 |
| His | Ile | Asp | Gln | Gln | Ile | Gln | Gly | Ser | Arg | Ile | Gly | Gly | Ala | Gln | Glu | 195 | 200 | 205 |
| Met | Glu | Arg | Leu | Ala | Gln | Leu | Gln | Gln | Cys | Leu | Gln | Ala | Val | Leu | Ile | 210 | 215 | 220 |
| Phe | Ser | Gly | Leu | Glu | Ile | Ala | Thr | Thr | Phe | Glu | His | Tyr | Tyr | Gln | His | 225 | 230 | 235 |
| Tyr | Met | Ala | Asp | Arg | Leu | Leu | Gly | Val | Val | Ser | Ser | Trp | Leu | Glu | Gly | 245 | 250 | 255 |
| Ala | Val | Leu | Glu | Gln | Ile | Gly | Pro | Cys | Phe | Pro | Asn | Arg | Leu | Pro | Gln | 260 | 265 | 270 |
| Gln | Met | Leu | Gln | Ser | Leu | Ser | Thr | Ser | Lys | Glu | Leu | Gln | Arg | Gln | Phe | 275 | 280 | 285 |
| His | Val | Tyr | Gln | Leu | Gln | Gln | Leu | Asp | Gln | Glu | Leu | Leu | Lys | Leu | Glu | 290 | 295 | 300 |
| Asp | Thr | Glu | Lys | Lys | Ile | Gln | Val | Gly | Leu | Gly | Ala | Ser | Gly | Lys | Glu | 305 | 310 | 315 |
| His | Lys | Ser | Glu | Lys | Glu | Glu | Glu | Ala | Gly | Ala | Ala | Ala | Val | Val | Asp | 325 | 330 | 335 |
| Val | Ala | Glu | Gly | Glu | Glu | Glu | Glu | Glu | Glu | Asn | Glu | Asp | Leu | Tyr | Tyr | 340 | 345 | 350 |
| Glu | Gly | Ala | Met | Pro | Glu | Val | Ser | Val | Leu | Val | Leu | Ser | Arg | His | Ser | 355 | 360 | 365 |
| Trp | Pro | Val | Ala | Ser | Ile | Cys | His | Thr | Leu | Asn | Pro | Arg | Thr | Cys | Leu | 370 | 375 | 380 |

1331

Pro Ser Tyr Leu Arg Gly Thr Leu Asn Arg Tyr Ser Asn Phe Tyr Asn
 385 390 395 400
 Lys Ser Gln Ser His Pro Ala Leu Glu Arg Gly Ser Gln Arg Arg Leu
 405 410 415
 Gln Trp Thr Trp Leu Gly Trp Ala Glu Leu Gln Phe Gly Asn Gln Thr
 420 425 430
 Leu His Val Ser Thr Val Gln Met Trp Leu Leu Leu Tyr Leu Asn Asp
 435 440 445
 Leu Lys Ala Val Ser Val Glu Ser Leu Leu Ala Phe Ser Gly Leu Ser
 450 455 460
 Ala Asp Met Leu Asn Gln Ala Ile Gly Pro Leu Thr Ser Ser Arg Gly
 465 470 475 480
 Pro Leu Asp Leu His Glu Gln Lys Asp Ile Pro Gly Gly Val Leu Lys
 485 490 495
 Ile Arg Asp Gly Ser Lys Glu Pro Arg Ser Arg Trp Asp Ile Val Arg
 500 505 510
 Leu Ile Pro Pro Gln Thr Tyr Leu Gln Ala Glu Gly Glu Asp Gly Gln
 515 520 525
 Asn Leu Glu Lys Arg Arg Asn Leu Leu Asn Cys Leu Ile Val Arg Ile
 530 535 540
 Leu Lys Ala His Gly Asp Glu Gly Leu His Ile Asp Gln Leu Val Cys
 545 550 555 560
 Leu Val Leu Glu Ala Trp Gln Lys Gly Pro Cys Pro Pro Arg Gly Leu
 565 570 575
 Val Ser Ser Leu Gly Lys Gly Ser Ala Cys Ser Ser Thr Asp Val Leu
 580 585 590
 Ser Cys Ile Leu His Leu Leu Gly Lys Gly Thr Leu Arg Arg His Asp
 595 600 605
 Asp Arg Pro Gln Val Leu Ser Tyr Ala Val Pro Val Thr Val Met Glu
 610 615 620
 Pro His Thr Glu Ser Leu Asn Pro Gly Ser Ser Gly Pro Asn Pro Pro
 625 630 635 640
 Leu Thr Phe His Thr Leu Gln Ile Arg Ser Arg Gly Val Pro Tyr Ala
 645 650 655

1332

Ser Cys Thr Ala Thr Gln Ser Phe Ser Thr Ser Gly Ser Pro Arg Leu
 660 665 670

Gly Val Arg Gly Arg
 675

<210> 1296

<211> 578

<212> PRT

<213> Homo sapiens

<400> 1296

Gly Thr Arg Glu Gly Ala Arg Val Gly Gly Ala Arg Gly Gly Arg Asp
 1 5 10 15

Gly Arg Lys Met Ala Thr Ala Thr Ile Ala Leu Gln Val Asn Gly Gln
 20 25 30

Gln Gly Gly Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala
 35 40 45

Gly Asp Lys Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu
 50 55 60

Asn Gly Gln Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro
 65 70 75 80

Glu Gln Gln Glu Ala Leu Gln Lys Ala Lys Lys Tyr Ala Met Glu Gln
 85 90 95

Ser Ile Lys Ser Val Leu Val Lys Gln Thr Ile Ala His Gln Gln Gln
 100 105 110

Gln Leu Thr Asn Leu Gln Met Ala Ala Val Thr Met Gly Phe Gly Asp
 115 120 125

Pro Leu Ser Pro Leu Gln Ser Met Ala Ala Gln Arg Gln Arg Ala Leu
 130 135 140

Ala Ile Met Cys Arg Val Tyr Val Gly Ser Ile Tyr Tyr Glu Leu Gly
 145 150 155 160

Glu Asp Thr Ile Arg Gln Ala Phe Ala Pro Phe Gly Pro Ile Lys Ser
 165 170 175

Ile Asp Met Ser Trp Asp Ser Val Thr Met Lys His Lys Gly Phe Ala
 180 185 190

Phe Val Glu Tyr Glu Val Pro Glu Ala Ala Gln Leu Ala Leu Glu Gln

1333

| 195 | | | | | 200 | | | | | 205 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Ser | Val | Met | Leu | Gly | Gly | Arg | Asn | Ile | Lys | Val | Gly | Arg | Pro |
| 210 | | | | | | 215 | | | | | 220 | | | | |
| Ser | Asn | Ile | Gly | Gln | Ala | Gln | Pro | Ile | Ile | Asp | Gln | Leu | Ala | Glu | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Arg | Ala | Phe | Asn | Arg | Ile | Tyr | Val | Ala | Ser | Val | His | Gln | Asp | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Asp | Asp | Asp | Ile | Lys | Ser | Val | Phe | Glu | Ala | Phe | Gly | Lys | Ile | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Cys | Thr | Leu | Ala | Arg | Asp | Pro | Thr | Thr | Gly | Lys | His | Lys | Gly | Tyr |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Gly | Phe | Ile | Glu | Tyr | Glu | Lys | Ala | Gln | Ser | Ser | Gln | Asp | Ala | Val | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Met | Asn | Leu | Phe | Asp | Leu | Gly | Gly | Gln | Tyr | Leu | Arg | Val | Gly | Lys |
| 305 | | | | | | 310 | | | | | 315 | | | | 320 |
| Ala | Val | Thr | Pro | Pro | Met | Pro | Leu | Leu | Thr | Pro | Ala | Thr | Pro | Gly | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Pro | Pro | Ala | Ala | Ala | Val | Ala | Ala | Ala | Ala | Ala | Thr | Ala | Lys | Ile |
| | | | 340 | | | | | | 345 | | | | | 350 | |
| Thr | Ala | Gln | Glu | Ala | Val | Ala | Gly | Ala | Ala | Val | Leu | Gly | Thr | Leu | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Pro | Gly | Leu | Val | Ser | Pro | Ala | Leu | Thr | Leu | Ala | Gln | Pro | Leu | Gly |
| | | 370 | | | | | 375 | | | | | 380 | | | |
| Thr | Leu | Pro | Gln | Ala | Val | Met | Ala | Ala | Gln | Ala | Pro | Gly | Val | Ile | Thr |
| 385 | | | | | | 390 | | | | | 395 | | | | 400 |
| Gly | Val | Thr | Pro | Ala | Arg | Pro | Pro | Ile | Pro | Val | Thr | Ile | Pro | Ser | Val |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Gly | Val | Val | Asn | Pro | Ile | Leu | Ala | Ser | Pro | Pro | Thr | Leu | Gly | Leu | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Pro | Lys | Lys | Glu | Lys | Glu | Glu | Glu | Glu | Leu | Phe | Pro | Glu | Ser | Glu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Arg | Pro | Glu | Met | Leu | Ser | Glu | Gln | Glu | His | Met | Ser | Ile | Ser | Gly | Ser |
| | | | | 450 | | | 455 | | | | | 460 | | | |
| Ser | Ala | Arg | His | Met | Val | Met | Gln | Lys | Leu | Leu | Arg | Lys | Gln | Glu | Ser |

1334

465 470 475 480
 Thr Val Met Val Leu Arg Asn Met Val Asp Pro Lys Asp Ile Asp Asp
 485 490 495
 Asp Leu Glu Gly Glu Val Thr Glu Glu Cys Gly Lys Phe Gly Ala Val
 500 505 510
 Asn Arg Val Ile Ile Tyr Gln Glu Lys Gln Gly Glu Glu Glu Asp Ala
 515 520 525
 Glu Ile Ile Val Lys Ile Phe Val Glu Phe Ser Ile Ala Ser Glu Thr
 530 535 540
 His Lys Ala Ile Gln Ala Leu Asn Gly Arg Trp Phe Ala Gly Arg Lys
 545 550 555 560
 Val Val Ala Glu Val Tyr Asp Gln Glu Arg Phe Asp Asn Ser Asp Leu
 565 570 575
 Ser Ala

<210> 1297
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 1297
 Pro Arg Gly Thr Ser Arg Arg Ser Ala Trp Pro Lys Met Ala Ala Ser
 1 5 10 15
 Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser Trp Ser Arg Glu
 20 25 30
 Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro Val Cys Ala Lys
 35 40 45
 Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp Lys Pro Val Thr
 50 55 60
 Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His Arg Lys Gly Trp
 65 70 75 80
 Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp His Ala Ala Glu
 85 90 95
 Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met Trp Gly Thr Phe
 100 105 110

1335

Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg Arg Gly Asn Gln
 115 120 125

Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser Pro His Lys Tyr
 130 135 140

Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser Tyr Phe Tyr Lys
 145 150 155 160

Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser Lys Val Val Tyr
 165 170 175

Lys Tyr Leu

<210> 1298

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1298

Gly Leu Val Thr Ile Phe Gly Cys Pro Ser Arg Glu Lys Gly Arg Met
 1 5 10 15

Pro Leu Glu Ser Ser Ser Ser Met Pro Leu Ser Phe Pro Ser Leu Leu
 20 25 30

Pro Ser Val Pro His Asn Thr Asn Pro Ser Pro Pro Leu Met Ser Tyr
 35 40 45

Ile Thr Ser Gln Glu Met Lys Cys Ile Leu His Trp Phe Ala Asn Trp
 50 55 60

Ser Gly Pro Gln Arg Glu Arg Phe Leu Glu Asp Leu Val Ala Lys Ala
 65 70 75 80

Val Pro Glu Lys Leu Gln Pro Leu Leu Asp Ser Leu Glu Gln Leu Ser
 85 90 95

Val Ser Gly Ala Asp Arg Pro Pro Ser Ile Phe Glu Cys Gln Leu His
 100 105 110

Leu Trp Asp Gln Trp Phe Arg Gly Trp Ala Glu Gln Glu Arg Asn Glu
 115 120 125

Phe Val Arg Gln Leu Glu Phe Ser Glu Pro Asp Phe Val Ala Lys Phe
 130 135 140

1336

Tyr Gln Ala Val Ala Ala Thr Ala Gly Lys Asp
 145 150 155

<210> 1299

<211> 449

<212> PRT

<213> Homo sapiens

<400> 1299

Ser Asn Arg Lys Phe Ile Pro His Gln Leu Leu Val Ala Ile Asp Leu
 1 5 10 15

Leu Ala Arg Gln Ala Val Arg Tyr Ile Asn Glu Asn Leu Ile Val Asn
 20 25 30

Thr Asp Glu Leu Gly Arg Asp Cys Leu Ile Asn Ala Ala Lys Thr Ser
 35 40 45

Met Ser Ser Lys Ile Ile Gly Ile Asn Gly Asp Phe Phe Ala Asn Met
 50 55 60

Val Val Asp Ala Val Leu Ala Ile Lys Tyr Thr Asp Ile Arg Gly Gln
 65 70 75 80

Pro Arg Tyr Pro Val Asn Ser Val Asn Ile Leu Lys Ala His Gly Arg
 85 90 95

Ser Gln Met Glu Ser Met Leu Ile Ser Gly Tyr Ala Leu Asn Cys Val
 100 105 110

Val Gly Ser Gln Gly Met Pro Lys Arg Ile Val Asn Ala Lys Ile Ala
 115 120 125

Cys Leu Asp Phe Ser Leu Gln Lys Thr Lys Met Lys Leu Gly Val Gln
 130 135 140

Val Val Ile Thr Asp Pro Glu Lys Leu Asp Gln Ile Arg Gln Arg Glu
 145 150 155 160

Ser Asp Ile Thr Lys Glu Arg Ile Gln Lys Ile Leu Ala Thr Gly Ala
 165 170 175

Asn Val Ile Leu Thr Thr Gly Gly Ile Asp Asp Met Cys Leu Lys Tyr
 180 185 190

Phe Val Glu Ala Gly Ala Met Ala Val Arg Arg Val Leu Lys Arg Asp
 195 200 205

Leu Lys Arg Ile Ala Lys Ala Ser Gly Ala Thr Ile Leu Ser Thr Leu

1337

210 215 220

Ala Asn Leu Glu Gly Glu Glu Thr Phe Glu Ala Ala Met Leu Gly Gln
225 230 235 240

Ala Glu Glu Val Val Gln Glu Arg Ile Cys Asp Asp Glu Leu Ile Leu
245 250 255

Ile Lys Asn Thr Lys Ala Arg Thr Ser Ala Ser Ile Ile Leu Arg Gly
260 265 270

Ala Asn Asp Phe Met Cys Asp Glu Met Glu Arg Ser Leu His Asp Ala
275 280 285

Leu Cys Val Val Lys Arg Val Leu Glu Ser Lys Ser Val Val Pro Gly
290 295 300

Gly Gly Ala Val Glu Ala Ala Leu Ser Ile Tyr Leu Glu Asn Tyr Ala
305 310 315 320

Thr Ser Met Gly Ser Arg Glu Gln Leu Ala Ile Ala Glu Phe Ala Arg
325 330 335

Ser Leu Leu Val Ile Pro Asn Thr Leu Ala Val Asn Ala Ala Gln Asp
340 345 350

Ser Thr Asp Leu Val Ala Lys Leu Arg Ala Phe His Asn Glu Ala Gln
355 360 365

Val Asn Pro Glu Arg Lys Asn Leu Lys Trp Ile Gly Leu Asp Leu Ser
370 375 380

Asn Gly Lys Pro Arg Asp Asn Lys Gln Ala Gly Val Phe Glu Pro Thr
385 390 395 400

Ile Val Lys Val Lys Ser Leu Lys Phe Ala Thr Glu Ala Ala Ile Thr
405 410 415

Ile Leu Arg Ile Asp Asp Leu Ile Lys Leu His Pro Glu Ser Lys Asp
420 425 430

Asp Lys His Gly Ser Tyr Glu Asp Ala Val His Ser Gly Ala Leu Asn
435 440 445

Asp

<210> 1300

<211> 96

1338

<212> PRT

<213> Homo sapiens

<400> 1300

Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe
1 5 10 15

Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro
20 25 30

Ser Pro Gln Ser Gln Cys Leu Cys Phe Leu Phe Tyr Phe Cys Ser Ile
35 40 45

Arg Phe Leu Leu Leu Leu Cys Leu Lys Ser Ser Leu Gly Ser Tyr Gln
50 55 60

Gly Phe Ser Phe Cys Val Ala Phe Ala Ala Trp Ile Lys His Trp Leu
65 70 75 80

Thr Val Leu Met Cys Glu Glu Lys Lys Phe Ser Lys Ala Gly Glu Leu
85 90 95

<210> 1301

<211> 332

<212> PRT

<213> Homo sapiens

<400> 1301

Gly Glu Pro Lys Met Thr Gly Ser Asn Glu Phe Lys Leu Asn Gln Pro
1 5 10 15

Pro Glu Asp Gly Ile Ser Ser Val Lys Phe Ser Pro Asn Thr Ser Gln
20 25 30

Phe Leu Leu Val Ser Ser Trp Asp Thr Ser Val Arg Leu Tyr Asp Val
35 40 45

Pro Ala Asn Ser Met Arg Leu Lys Tyr Gln His Thr Gly Ala Val Leu
50 55 60

Asp Cys Ala Phe Tyr Asp Pro Thr His Ala Trp Ser Gly Gly Leu Asp
65 70 75 80

His Gln Leu Lys Met His Asp Leu Asn Thr Asp Gln Glu Asn Leu Val
85 90 95

1339

Gly Thr His Asp Ala Pro Ile Arg Cys Val Glu Tyr Cys Pro Glu Val
 100 105 110
 Asn Val Met Val Thr Gly Ser Trp Asp Gln Thr Val Lys Leu Trp Asp
 115 120 125
 Pro Arg Thr Pro Cys Asn Ala Gly Thr Phe Ser Gln Pro Glu Lys Val
 130 135 140
 Tyr Thr Leu Ser Val Ser Gly Asp Arg Leu Ile Val Gly Thr Ala Gly
 145 150 155 160
 Arg Arg Val Leu Val Trp Asp Leu Arg Asn Met Gly Tyr Val Gln Gln
 165 170 175
 Arg Arg Glu Ser Ser Leu Lys Tyr Gln Thr Arg Cys Ile Arg Ala Phe
 180 185 190
 Pro Asn Lys Gln Gly Tyr Val Leu Ser Ser Ile Glu Gly Arg Val Ala
 195 200 205
 Val Glu Tyr Leu Asp Pro Ser Pro Glu Val Gln Lys Lys Lys Tyr Ala
 210 215 220
 Phe Lys Cys His Arg Leu Lys Glu Asn Asn Ile Glu Gln Ile Tyr Pro
 225 230 235 240
 Val Asn Ala Ile Ser Phe His Asn Ile His Asn Thr Phe Ala Thr Gly
 245 250 255
 Gly Ser Asp Gly Phe Val Asn Ile Trp Asp Pro Phe Asn Lys Lys Arg
 260 265 270
 Leu Cys Gln Phe His Arg Tyr Pro Thr Ser Ile Ala Ser Leu Ala Phe
 275 280 285
 Ser Asn Asp Gly Thr Thr Leu Ala Ile Ala Ser Ser Tyr Met Tyr Glu
 290 295 300
 Met Asp Asp Thr Glu His Pro Glu Asp Gly Ile Phe Ile Arg Gln Val
 305 310 315 320
 Thr Asp Ala Glu Thr Lys Pro Lys Ser Pro Cys Thr
 325 330

<210> 1302

<211> 565

<212> PRT

<213> Homo sapiens

1340

<400> 1302

```

Leu His Cys Thr Met Cys Gly Ile Trp Ala Leu Phe Gly Ser Asp Asp
 1             5             10             15

Cys Leu Ser Val Gln Cys Leu Ser Ala Met Lys Ile Ala His Arg Gly
      20             25             30

Pro Asp Ala Phe Arg Phe Glu Asn Val Asn Gly Tyr Thr Asn Cys Cys
      35             40             45

Phe Gly Phe His Arg Leu Ala Val Val Asp Pro Leu Phe Gly Met Gln
 50             55             60

Pro Ile Arg Val Lys Lys Tyr Pro Tyr Leu Trp Leu Cys Tyr Asn Gly
 65             70             75             80

Glu Ile Tyr Asn His Lys Lys Met Gln Gln His Phe Glu Phe Glu Tyr
      85             90             95

Gln Thr Lys Val Asp Gly Glu Ile Ile Leu His Leu Tyr Asp Lys Gly
      100             105             110

Gly Ile Glu Gln Thr Ile Cys Met Leu Asp Gly Val Phe Ala Phe Val
      115             120             125

Leu Leu Asp Thr Ala Asn Lys Lys Val Phe Leu Gly Arg Asp Thr Tyr
      130             135             140

Gly Val Arg Pro Leu Phe Lys Ala Met Thr Glu Asp Gly Phe Leu Ala
      145             150             155             160

Val Cys Ser Glu Ala Lys Gly Leu Val Thr Leu Lys His Ser Ala Thr
      165             170             175

Pro Phe Leu Lys Val Glu Pro Phe Leu Pro Gly His Tyr Glu Val Leu
      180             185             190

Asp Leu Lys Pro Asn Gly Lys Val Ala Ser Val Glu Met Val Lys Tyr
      195             200             205

His His Cys Arg Asp Glu Pro Leu His Ala Leu Tyr Asp Asn Val Glu
      210             215             220

Lys Leu Phe Pro Gly Phe Glu Ile Glu Thr Val Lys Asn Asn Leu Arg
      225             230             235             240

Ile Leu Phe Asn Asn Ala Val Lys Lys Arg Leu Met Thr Asp Arg Arg
      245             250             255

Ile Gly Cys Leu Leu Ser Gly Gly Leu Asp Ser Ser Leu Val Ala Ala

```

1341

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Thr Leu Leu Lys Gln Leu Lys Glu Ala Gln Val Gln Tyr Pro Leu Gln | | |
| 275 | 280 | 285 |
| Thr Phe Ala Ile Gly Met Glu Asp Ser Pro Asp Leu Leu Ala Ala Arg | | |
| 290 | 295 | 300 |
| Lys Val Ala Asp His Ile Gly Ser Glu His Tyr Glu Val Leu Phe Asn | | |
| 305 | 310 | 315 |
| Ser Glu Glu Gly Ile Gln Ala Leu Asp Glu Val Ile Phe Ser Leu Glu | | |
| 325 | 330 | 335 |
| Thr Tyr Asp Ile Thr Thr Val Arg Ala Ser Val Gly Met Tyr Leu Ile | | |
| 340 | 345 | 350 |
| Ser Lys Tyr Ile Arg Lys Asn Thr Asp Ser Val Val Ile Phe Ser Gly | | |
| 355 | 360 | 365 |
| Glu Gly Ser Asp Glu Leu Thr Gln Gly Tyr Ile Tyr Phe His Lys Ala | | |
| 370 | 375 | 380 |
| Pro Ser Pro Glu Lys Ala Glu Glu Glu Ser Glu Arg Leu Leu Arg Glu | | |
| 385 | 390 | 395 |
| Leu Tyr Leu Phe Asp Val Leu Arg Ala Asp Arg Thr Thr Ala Ala His | | |
| 405 | 410 | 415 |
| Gly Leu Glu Leu Arg Val Pro Phe Leu Asp His Arg Phe Ser Ser Tyr | | |
| 420 | 425 | 430 |
| Tyr Leu Ser Leu Pro Pro Glu Met Arg Ile Pro Lys Asn Gly Ile Glu | | |
| 435 | 440 | 445 |
| Lys His Leu Leu Arg Glu Thr Phe Glu Asp Ser Asn Leu Ile Pro Lys | | |
| 450 | 455 | 460 |
| Glu Ile Leu Trp Arg Pro Lys Glu Ala Phe Ser Asp Gly Ile Thr Ser | | |
| 465 | 470 | 475 |
| Val Lys Asn Ser Trp Phe Lys Ile Leu Gln Glu Tyr Val Glu His Gln | | |
| 485 | 490 | 495 |
| Val Asp Asp Ala Met Met Ala Asn Ala Ala Gln Lys Phe Pro Phe Asn | | |
| 500 | 505 | 510 |
| Thr Pro Lys Thr Lys Glu Gly Tyr Tyr Tyr Arg Gln Val Phe Glu Arg | | |
| 515 | 520 | 525 |
| His Tyr Pro Gly Arg Ala Asp Trp Leu Ser His Tyr Trp Met Pro Lys | | |

1342

530 535 540
 Trp Ile Asn Ala Thr Asp Pro Ser Ala Arg Thr Leu Thr His Tyr Lys
 545 550 555 560
 Ser Ala Val Lys Ala
 565

 <210> 1303
 <211> 441
 <212> PRT
 <213> Homo sapiens

 <400> 1303
 Arg Arg Arg Arg Ala Cys Arg Ser Ala Glu Gly Thr Gly Leu Arg Ser
 1 5 10 15
 Leu Leu Leu Pro Pro Arg Leu Gln Leu Pro Ala Gly Pro Phe Ser Arg
 20 25 30
 Cys Arg Trp Asp Pro Val Ser Ser Pro Arg Pro Ser Thr Met Pro Pro
 35 40 45
 Lys Lys Gly Gly Asp Gly Ile Lys Pro Pro Pro Ile Ile Gly Arg Phe
 50 55 60
 Gly Thr Ser Leu Lys Ile Gly Ile Val Gly Leu Pro Asn Val Gly Lys
 65 70 75 80
 Ser Thr Phe Phe Asn Val Leu Thr Asn Ser Gln Ala Ser Ala Glu Asn
 85 90 95
 Phe Pro Phe Cys Thr Ile Asp Pro Asn Glu Ser Arg Val Pro Val Pro
 100 105 110
 Asp Glu Arg Phe Asp Phe Leu Cys Gln Tyr His Lys Pro Ala Ser Lys
 115 120 125
 Ile Pro Ala Phe Leu Asn Val Val Asp Ile Ala Gly Leu Val Lys Gly
 130 135 140
 Ala His Asn Gly Gln Gly Leu Gly Asn Ala Phe Leu Ser His Ile Ser
 145 150 155 160
 Ala Cys Asp Gly Ile Phe His Leu Thr Arg Ala Phe Glu Asp Asp Asp
 165 170 175
 Ile Thr His Val Glu Gly Ser Val Asp Pro Ile Arg Asp Ile Glu Ile
 180 185 190

1343

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | His | Glu | Glu | Leu | Gln | Leu | Lys | Asp | Glu | Glu | Met | Ile | Gly | Pro | Ile | 195 | 200 | 205 | |
| Ile | Asp | Lys | Leu | Glu | Lys | Val | Ala | Val | Arg | Gly | Gly | Asp | Lys | Lys | Leu | 210 | 215 | 220 | |
| Lys | Pro | Glu | Tyr | Asp | Ile | Met | Cys | Lys | Val | Lys | Ser | Trp | Val | Ile | Asp | 225 | 230 | 235 | 240 |
| Gln | Lys | Lys | Pro | Val | Arg | Phe | Tyr | His | Asp | Trp | Asn | Asp | Lys | Glu | Ile | 245 | 250 | 255 | |
| Glu | Val | Leu | Asn | Lys | His | Leu | Phe | Leu | Thr | Ser | Lys | Pro | Met | Val | Tyr | 260 | 265 | 270 | |
| Leu | Val | Asn | Leu | Ser | Glu | Lys | Asp | Tyr | Ile | Arg | Lys | Lys | Asn | Lys | Trp | 275 | 280 | 285 | |
| Leu | Ile | Lys | Ile | Lys | Glu | Trp | Val | Asp | Lys | Tyr | Asp | Pro | Gly | Ala | Leu | 290 | 295 | 300 | |
| Val | Ile | Pro | Phe | Ser | Gly | Ala | Leu | Glu | Leu | Lys | Leu | Gln | Glu | Leu | Ser | 305 | 310 | 315 | 320 |
| Ala | Glu | Glu | Arg | Gln | Lys | Tyr | Leu | Glu | Ala | Asn | Met | Thr | Gln | Ser | Ala | 325 | 330 | 335 | |
| Leu | Pro | Lys | Ile | Ile | Lys | Ala | Gly | Phe | Ala | Ala | Leu | Gln | Leu | Glu | Tyr | 340 | 345 | 350 | |
| Phe | Phe | Thr | Ala | Gly | Pro | Asp | Glu | Val | Arg | Ala | Trp | Thr | Ile | Arg | Lys | 355 | 360 | 365 | |
| Gly | Thr | Lys | Ala | Pro | Gln | Ala | Ala | Gly | Lys | Ile | His | Thr | Asp | Phe | Glu | 370 | 375 | 380 | |
| Lys | Gly | Phe | Ile | Met | Ala | Glu | Val | Met | Lys | Tyr | Glu | Asp | Phe | Lys | Glu | 385 | 390 | 395 | 400 |
| Glu | Gly | Ser | Glu | Asn | Ala | Val | Lys | Ala | Ala | Gly | Lys | Tyr | Arg | Gln | Gln | 405 | 410 | 415 | |
| Gly | Arg | Asn | Tyr | Ile | Val | Glu | Asp | Gly | Asp | Ile | Ile | Phe | Phe | Lys | Phe | 420 | 425 | 430 | |
| Asn | Thr | Pro | Gln | Gln | Pro | Lys | Lys | Lys | | | | | | | | 435 | 440 | | |

1344

<210> 1304

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1304

Glu Lys Lys Arg Gly Arg Glu Asp Lys Pro Gly Thr Met Ala Thr Phe
 1 5 10 15

Pro Pro Ala Thr Ser Ala Pro Gln Gln Pro Pro Gly Pro Glu Asp Glu
 20 25 30

Asp Ser Ser Leu Asp Glu Ser Asp Leu Tyr Ser Leu Ala His Ser Tyr
 35 40 45

Leu Gly Gly Gly Gly Arg Lys Gly Arg Thr Lys Arg Glu Ala Ala Ala
 50 55 60

Asn Thr Asn Arg Pro Ser Pro Gly Gly His Glu Arg Lys Leu Val Thr
 65 70 75 80

Lys Leu Gln Asn Ser Glu Arg Lys Lys Arg Gly Ala Arg Arg
 85 90

<210> 1305

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1305

Val Ile Leu Glu Met Val Ile Val Phe Cys Leu Val Thr Phe Ala Thr
 1 5 10 15

Val Pro Phe Lys Thr Met Trp Lys Pro Gln Val Cys Gly Gln His Arg
 20 25 30

Trp Asn Asp Ile Leu Cys Phe Leu Arg Leu Pro Ser Thr Arg His Ile
 35 40 45

Ser Leu Val Leu Gln Met Ser Ala Gln Val Leu Val Thr Ser Phe Ser
 50 55 60

Cys Cys Pro Gly Lys Ser Val Cys Ala Gly Ala Gly Ala Leu Ala Leu
 65 70 75 80

Phe Arg

1345

<210> 1306

<211> 231

<212> PRT

<213> Homo sapiens

<400> 1306

Ala Arg Glu Met Ala Ala Gln Gln Arg Asp Cys Gly Gly Ala Ala Gln
 1 5 10 15

Leu Ala Gly Pro Ala Ala Glu Ala Asp Pro Leu Gly Arg Phe Thr Cys
 20 25 30

Pro Val Cys Leu Glu Val Tyr Glu Lys Pro Val Gln Val Pro Cys Gly
 35 40 45

His Val Phe Cys Ser Ala Cys Leu Gln Glu Cys Leu Lys Pro Lys Lys
 50 55 60

Pro Val Cys Gly Val Cys Arg Ser Ala Leu Ala Pro Gly Val Arg Ala
 65 70 75 80

Val Glu Leu Glu Arg Gln Ile Glu Ser Thr Glu Thr Ser Cys His Gly
 85 90 95

Cys Arg Lys Asn Phe Phe Leu Ser Lys Ile Arg Ser His Val Ala Thr
 100 105 110

Cys Ser Lys Tyr Gln Asn Tyr Ile Met Glu Gly Val Lys Ala Thr Ile
 115 120 125

Lys Asp Ala Ser Leu Gln Pro Arg Asn Val Pro Asn Arg Tyr Thr Phe
 130 135 140

Pro Cys Pro Tyr Cys Pro Glu Lys Asn Phe Asp Gln Glu Gly Leu Val
 145 150 155 160

Glu His Cys Lys Leu Phe His Ser Thr Asp Thr Lys Ser Val Val Cys
 165 170 175

Pro Ile Cys Ala Ser Met Pro Trp Gly Asp Pro Asn Tyr Arg Ser Ala
 180 185 190

Asn Phe Arg Glu His Ile Gln Arg Arg His Arg Phe Ser Tyr Asp Thr
 195 200 205

Phe Val Asp Tyr Asp Val Asp Glu Glu Asp Met Met Asn Gln Val Leu
 210 215 220

Gln Arg Ser Ile Ile Asp Gln
 225 230

1346

<210> 1307

<211> 170

<212> PRT

<213> Homo sapiens

<400> 1307

Gln Lys Gln Arg Thr Phe Trp Lys Tyr Tyr Tyr Asp Gly Lys Asp Tyr
 1 5 10 15

Ile Glu Phe Asn Lys Glu Ile Pro Ala Trp Val Pro Phe Asp Pro Ala
 20 25 30

Ala Gln Ile Thr Lys Gln Lys Trp Glu Ala Glu Pro Val Tyr Val Gln
 35 40 45

Arg Ala Lys Ala Tyr Leu Glu Glu Glu Cys Pro Ala Thr Leu Arg Lys
 50 55 60

Tyr Leu Lys Tyr Ser Lys Asn Ile Leu Asp Arg Gln Asp Pro Pro Ser
 65 70 75 80

Val Val Val Thr Ser His Gln Ala Pro Gly Glu Lys Lys Lys Leu Lys
 85 90 95

Cys Leu Ala Tyr Asp Phe Tyr Pro Gly Lys Ile Asp Val His Trp Thr
 100 105 110

Arg Ala Gly Glu Val Gln Glu Pro Glu Leu Arg Gly Asp Val Leu His
 115 120 125

Asn Gly Asn Gly Thr Tyr Gln Ser Trp Val Val Val Ala Val Pro Pro
 130 135 140

Gln Asp Thr Ala Pro Tyr Ser Cys His Val Gln His Ser Ser Leu Ala
 145 150 155 160

Gln Pro Leu Val Val Pro Trp Glu Ala Ser
 165 170

<210> 1308

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1347

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1308

Cys Ser Cys Thr Val Arg Ala Arg Arg Arg Leu Asn Arg Gly Leu Arg

1

5

10

15

Arg Lys Gln His Ser Leu Leu Lys Arg Leu Arg Lys Ala Lys Lys Glu

20

25

30

Ala Pro Pro Met Glu Lys Pro Glu Val Val Lys Thr His Leu Arg Asp

35

40

45

Met Ile Ile Leu Pro Glu Met Val Gly Ser Met Val Gly Val Tyr Asn

50

55

60

Gly Lys Thr Phe Asn Gln Val Glu Ile Lys Pro Glu Met Ile Gly His

65

70

75

80

Tyr Leu Gly Glu Phe Ser Ile Thr Tyr Lys Pro Val Lys His Xaa Arg

85

90

95

Pro Gly Ile Gly Ala Thr His Xaa Ser Arg Phe Ile Pro Leu Lys

100

105

110

<210> 1309

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1309

Pro Val Ser Pro Gln Glu Arg Pro Pro Pro Tyr Leu Ala Val Pro Gly

1

5

10

15

His Gly Glu Glu Tyr Pro Val Ala Gly Ala His Ser Ser Pro Pro Lys

20

25

30

Ala Arg Phe Leu Arg Val Pro Ser Glu His Pro Tyr Leu Thr Pro Ser

35

40

45

Pro Glu Ser Pro Glu His Trp Ala Ser Pro Ser Pro Pro Ser Leu Ser

50

55

60

Asp Trp Ser Glu Ser Thr Pro Ser Pro Ala Thr Ala Thr Gly Ala Met

1348

| | | | | | | |
|---|-----|----|-----|----|-----|----|
| 65 | | 70 | | 75 | | 80 |
| Ala Thr Thr Thr Gly Ala Leu Pro Ala Gln Pro Leu Pro Leu Ser Val | | | | | | |
| | 85 | | 90 | | 95 | |
| Pro Ser Ser Leu Ala Gln Ala Gln Thr Gln Leu Gly Pro Gln Pro Glu | | | | | | |
| | 100 | | 105 | | 110 | |
| Val Thr Pro Lys Arg Gln Val Leu Ala | | | | | | |
| | 115 | | 120 | | | |

<210> 1310

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1310

| | | | | | | | | | | | | | | | |
|---|-----|--|----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|-----|--|
| Gln Cys Pro Gly Arg Ala Gly Ala Pro Gln Thr Arg Ala Pro Arg Ala | | | | | | | | | | | | | | | |
| 1 | | | 5 | | | | 10 | | | | | 15 | | | |
| Arg Glu Arg Gly Gly Ala Met Ala Thr Ala Asn Gly Ala Val Glu Asn | | | | | | | | | | | | | | | |
| | 20 | | | | | 25 | | | | | 30 | | | | |
| Gly Gln Pro Asp Arg Lys Pro Pro Ala Leu Pro Arg Pro Ile Arg Asn | | | | | | | | | | | | | | | |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu Glu Val Lys Phe Thr Lys Ile Phe Ile Asn Asn Glu Trp His Glu | | | | | | | | | | | | | | | |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ser Lys Ser Gly Lys Lys Phe Ala Thr Cys Asn Pro Ser Thr Arg Glu | | | | | | | | | | | | | | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gln Ile Cys Glu Val Glu Glu Gly Asp Lys Pro Asp Val Asp Lys Ala | | | | | | | | | | | | | | | |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val Glu Ala Ala Gln Val Ala Phe Gln Arg Gly Ser Pro Trp Arg Arg | | | | | | | | | | | | | | | |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Leu Asp Ala Leu Ser Arg Gly Arg Leu Leu His Gln Leu Ala Asp Leu | | | | | | | | | | | | | | | |
| | 115 | | | | | | 120 | | | | | | 125 | | |
| Val Glu Arg Asp Arg Ala Thr Leu Ala Ala Leu Glu Thr Met Asp Thr | | | | | | | | | | | | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly Lys Pro Phe Leu His Ala Phe Phe Ile Asp Leu Glu Gly Cys Ile | | | | | | | | | | | | | | | |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Arg Thr Leu Arg Tyr Phe Ala Gly Trp Ala Asp Lys Ile Gln Gly Lys | | | | | | | | | | | | | | | |
| | | | | 165 | | | | 170 | | | | | | 175 | |

1349

Thr Ile Pro Thr Asp Asp Asn Val Cys Ala Ser Pro Gly Met Ser Pro
 180 185 190

Leu Val Ser Val Gly Pro Ser Leu His Gly Thr Ser Pro Cys
 195 200 205

<210> 1311

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1311

Ser Trp Glu Thr Glu Lys Met Gln Thr Ala Gly Ala Leu Phe Ile Ser
 1 5 10 15

Pro Ala Leu Ile Arg Cys Cys Thr Arg Gly Leu Ile Arg Pro Val Ser
 20 25 30

Ala Ser Phe Leu Asn Ser Pro Val Asn Ser Ser Lys Gln Pro Ser Tyr
 35 40 45

Ser Asn Phe Pro Leu Gln Val Ala Arg Arg Glu Phe Gln Thr Ser Val
 50 55 60

Val Ser Arg Asp Ile Asp Thr Ala Ala Lys Phe Ile Gly Ala Gly Ala
 65 70 75 80

Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe
 85 90 95

Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln
 100 105 110

Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly
 115 120 125

Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met
 130 135 140

<210> 1312

<211> 495

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1350

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (392)

<223> Xaa equals any of the naturally occurring L-amino acids'

<220>

<221> SITE

<222> (460)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1312

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Met | Glu | Gly | Gln | Asp | Glu | Val | Ser | Ala | Arg | Glu | Gln | His | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Gln | Val | Arg | Glu | Ser | Thr | Ile | Cys | Phe | Leu | Leu | Phe | Ala | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Val | Val | Ser | Tyr | Phe | Ile | Ile | Thr | Arg | Tyr | Lys | Arg | Lys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Gln | Glu | Asp | Glu | Asp | Ala | Ile | Val | Asn | Arg | Ile | Ser | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Thr | Phe | Thr | Leu | Ala | Val | Ser | Ala | Gly | Ala | Val | Leu | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ser | Ile | Ile | Ser | Asn | Glu | Ile | Leu | Leu | Ser | Phe | Pro | Gln | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Tyr | Ile | Gln | Trp | Leu | Asn | Gly | Ser | Leu | Ile | His | Gly | Leu | Trp | Asn |
| | | 100 | | | | | 105 | | | | | 110 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Ser | Leu | Phe | Ser | Asn | Leu | Xaa | Leu | Phe | Val | Leu | Met | Pro | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Phe | Phe | Leu | Glu | Ser | Glu | Gly | Phe | Ala | Gly | Leu | Lys | Lys | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Ala | Arg | Ile | Leu | Glu | Thr | Leu | Val | Met | Leu | Leu | Leu | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ile | Leu | Gly | Ile | Val | Trp | Val | Ala | Ser | Ala | Leu | Ile | Asp | Asn |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ala | Ser | Met | Glu | Ser | Leu | Tyr | Asp | Leu | Trp | Glu | Phe | Tyr | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Tyr | Leu | Tyr | Ser | Cys | Ile | Ser | Leu | Met | Gly | Cys | Leu | Leu | Leu | Leu |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1351

| | | |
|---|---|---------|
| 195 | 200 | 205 |
| Leu Cys Thr Pro Val Gly | Leu Ser Arg Met Phe Thr Val Met Gly Gln | |
| 210 | 215 | 220 |
| Leu Leu Val Lys Pro Thr Ile Leu Glu Asp Leu Asp Glu Gln Ile Tyr | | |
| 225 | 230 | 235 240 |
| Ile Ile Thr Leu Glu Glu Glu Ala Leu Gln Arg Arg Leu Asn Gly Leu | | |
| 245 | 250 | 255 |
| Ser Ser Ser Val Glu Tyr Asn Ile Met Glu Leu Glu Gln Glu Leu Glu | | |
| 260 | 265 | 270 |
| Asn Val Lys Thr Leu Lys Thr Lys Leu Asp Pro Trp Ser Ser Phe Ser | | |
| 275 | 280 | 285 |
| Val Leu Gln Ser Pro Val Trp His Phe Ala Ala Gln Thr Pro Ala Asp | | |
| 290 | 295 | 300 |
| Ile Val Ser Pro Asp Ser His Phe Met Leu Ser Thr Gln Gly Met Ser | | |
| 305 | 310 | 315 320 |
| Trp Ala Gln Leu Val Phe Leu Leu Pro Ala Ser Arg Pro Gly Asn Ser | | |
| 325 | 330 | 335 |
| Gln Asp Lys Arg Arg Lys Lys Ala Ser Ala Trp Glu Arg Asn Leu Val | | |
| 340 | 345 | 350 |
| Tyr Pro Ala Val Met Val Leu Leu Leu Ile Glu Thr Ser Ile Ser Val | | |
| 355 | 360 | 365 |
| Leu Leu Val Ala Cys Asn Ile Leu Cys Leu Leu Val Asp Glu Thr Ala | | |
| 370 | 375 | 380 |
| Met Pro Lys Gly Thr Arg Gly Xaa Gly Ile Gly Asn Ala Ser Leu Ser | | |
| 385 | 390 | 395 400 |
| Thr Phe Gly Phe Val Gly Ala Ala Leu Glu Ile Ile Leu Ile Phe Tyr | | |
| 405 | 410 | 415 |
| Leu Met Val Ser Ser Val Val Gly Phe Tyr Ser Leu Arg Phe Phe Gly | | |
| 420 | 425 | 430 |
| Asn Phe Thr Pro Lys Lys Asp Asp Thr Thr Met Thr Lys Ile Ile Gly | | |
| 435 | 440 | 445 |
| Asn Cys Val Ser Ile Leu Val Leu Ser Ser Ala Xaa Pro Val Met Ser | | |
| 450 | 455 | 460 |
| Arg Thr Leu Gly Leu His Lys Leu His Leu Pro Asn Thr Ser Arg Asp | | |

1352

465 470 475 480

Ser Glu Thr Ala Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu
 485 490 495

<210> 1313

<211> 790

<212> PRT

<213> Homo sapiens

<400> 1313

Gly Thr Arg Gly Thr Ala Thr Glu Arg Leu Lys Met Ile Pro Phe Leu
 1 5 10 15

Pro Met Phe Ser Leu Leu Leu Leu Ile Val Asn Pro Ile Asn Ala
 20 25 30

Asn Asn His Tyr Asp Lys Ile Leu Ala His Ser Arg Ile Arg Gly Arg
 35 40 45

Asp Gln Gly Pro Asn Val Cys Ala Leu Gln Gln Ile Leu Gly Thr Lys
 50 55 60

Lys Lys Tyr Phe Ser Thr Cys Lys Asn Trp Tyr Lys Lys Ser Ile Cys
 65 70 75 80

Gly Gln Lys Thr Thr Val Leu Tyr Glu Cys Cys Pro Gly Tyr Met Arg
 85 90 95

Met Glu Gly Met Lys Gly Cys Pro Ala Val Leu Pro Ile Asp His Val
 100 105 110

Tyr Gly Thr Leu Gly Ile Val Gly Ala Thr Thr Thr Gln Arg Tyr Ser
 115 120 125

Asp Ala Ser Lys Leu Arg Glu Glu Ile Glu Gly Lys Gly Ser Phe Thr
 130 135 140

Tyr Phe Ala Pro Ser Asn Glu Ala Trp Asp Asn Leu Asp Ser Asp Ile
 145 150 155 160

Arg Arg Gly Leu Glu Ser Asn Val Asn Val Glu Leu Leu Asn Ala Leu
 165 170 175

His Ser His Met Ile Asn Lys Arg Met Leu Thr Lys Asp Leu Lys Asn
 180 185 190

Gly Met Ile Ile Pro Ser Met Tyr Asn Asn Leu Gly Leu Phe Ile Asn
 195 200 205

1353

His Tyr Pro Asn Gly Val Val Thr Val Asn Cys Ala Arg Ile Ile His
 210 215 220

Gly Asn Gln Ile Ala Thr Asn Gly Val Val His Val Ile Asp Arg Val
 225 230 235 240

Leu Thr Gln Ile Gly Thr Ser Ile Gln Asp Phe Ile Glu Ala Glu Asp
 245 250 255

Asp Leu Ser Ser Phe Arg Ala Ala Ala Ile Thr Ser Asp Ile Leu Glu
 260 265 270

Ala Leu Gly Arg Asp Gly His Phe Thr Leu Phe Ala Pro Thr Asn Glu
 275 280 285

Ala Phe Glu Lys Leu Pro Arg Gly Val Leu Glu Arg Ile Met Gly Asp
 290 295 300

Lys Val Ala Ser Glu Ala Leu Met Lys Tyr His Ile Leu Asn Thr Leu
 305 310 315 320

Gln Cys Ser Glu Ser Ile Met Gly Gly Ala Val Phe Glu Thr Leu Glu
 325 330 335

Gly Asn Thr Ile Glu Ile Gly Cys Asp Gly Asp Ser Ile Thr Val Asn
 340 345 350

Gly Ile Lys Met Val Asn Lys Lys Asp Ile Val Thr Asn Asn Gly Val
 355 360 365

Ile His Leu Ile Asp Gln Val Leu Ile Pro Asp Ser Ala Lys Gln Val
 370 375 380

Ile Glu Leu Ala Gly Lys Gln Gln Thr Thr Phe Thr Asp Leu Val Ala
 385 390 395 400

Gln Leu Gly Leu Ala Ser Ala Leu Arg Pro Asp Gly Glu Tyr Thr Leu
 405 410 415

Leu Ala Pro Val Asn Asn Ala Phe Ser Asp Asp Thr Leu Ser Met Asp
 420 425 430

Gln Arg Leu Leu Lys Leu Ile Leu Gln Asn His Ile Leu Lys Val Lys
 435 440 445

Val Gly Leu Asn Glu Leu Tyr Asn Gly Gln Ile Leu Glu Thr Ile Gly
 450 455 460

Gly Lys Gln Leu Arg Val Phe Val Tyr Arg Thr Ala Val Cys Ile Glu
 465 470 475 480

1354

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asn | Ser | Cys | Met | Glu | Lys | Gly | Ser | Lys | Gln | Gly | Arg | Asn | Gly | Ala | Ile | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| His | Ile | Phe | Arg | Glu | Ile | Ile | Lys | Pro | Ala | Glu | Lys | Ser | Leu | His | Glu | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Lys | Leu | Lys | Gln | Asp | Lys | Arg | Phe | Ser | Thr | Phe | Leu | Ser | Leu | Leu | Glu | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Ala | Ala | Asp | Leu | Lys | Glu | Leu | Leu | Thr | Gln | Pro | Gly | Asp | Trp | Thr | Leu | | |
| | 530 | | | | | | 535 | | | | 540 | | | | | | |
| Phe | Val | Pro | Thr | Asn | Asp | Ala | Phe | Lys | Gly | Met | Thr | Ser | Glu | Glu | Lys | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Glu | Ile | Leu | Ile | Arg | Asp | Lys | Asn | Ala | Leu | Gln | Asn | Ile | Ile | Leu | Tyr | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | |
| His | Leu | Thr | Pro | Gly | Val | Phe | Ile | Gly | Lys | Gly | Phe | Glu | Pro | Gly | Val | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Thr | Asn | Ile | Leu | Lys | Thr | Thr | Gln | Gly | Ser | Lys | Ile | Phe | Leu | Lys | Glu | | |
| | 595 | | | | | | 600 | | | | | 605 | | | | | |
| Val | Asn | Asp | Thr | Leu | Leu | Val | Asn | Glu | Leu | Lys | Ser | Lys | Glu | Ser | Asp | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Ile | Met | Thr | Thr | Asn | Gly | Val | Ile | His | Val | Val | Asp | Lys | Leu | Leu | Tyr | | |
| 625 | | | | | 630 | | | | 635 | | | | | 640 | | | |
| Pro | Ala | Asp | Thr | Pro | Val | Gly | Asn | Asp | Gln | Leu | Leu | Glu | Ile | Leu | Asn | | |
| | | | 645 | | | | | 650 | | | | | 655 | | | | |
| Lys | Leu | Ile | Lys | Tyr | Ile | Gln | Ile | Lys | Phe | Val | Arg | Gly | Ser | Thr | Phe | | |
| | | 660 | | | | | | 665 | | | | 670 | | | | | |
| Lys | Glu | Ile | Pro | Val | Thr | Val | Tyr | Lys | Pro | Ile | Ile | Lys | Lys | Tyr | Thr | | |
| | 675 | | | | | | 680 | | | | | 685 | | | | | |
| Lys | Ile | Ile | Asp | Gly | Val | Pro | Val | Glu | Ile | Thr | Glu | Lys | Glu | Thr | Arg | | |
| | 690 | | | | | 695 | | | | 700 | | | | | | | |
| Glu | Glu | Arg | Ile | Ile | Thr | Gly | Pro | Glu | Ile | Lys | Tyr | Thr | Arg | Ile | Ser | | |
| 705 | | | | | 710 | | | | 715 | | | | | 720 | | | |
| Thr | Gly | Gly | Gly | Glu | Thr | Glu | Glu | Thr | Leu | Lys | Lys | Leu | Leu | Gln | Glu | | |
| | | | 725 | | | | | 730 | | | | | | 735 | | | |
| Glu | Val | Thr | Lys | Val | Thr | Lys | Phe | Ile | Glu | Gly | Gly | Asp | Gly | His | Leu | | |
| | | 740 | | | | | | 745 | | | | | 750 | | | | |

1355

Phe Glu Asp Glu Glu Ile Lys Arg Leu Leu Gln Gly Asp Thr Pro Val
 755 760 765

Arg Lys Leu Gln Ala Asn Lys Lys Val Gln Gly Ser Arg Arg Arg Leu
 770 775 780

Arg Glu Gly Arg Ser Gln
 785 790

<210> 1314

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1314

Thr Ser Trp Ala Phe Asp Glu Thr Gly Xaa Asn Thr Ala Val Phe Leu
 1 5 10 15

Leu Glu Ile Xaa Trp Gly Ile Phe Phe Glu Leu Met Gly Thr Ile Arg
 20 25 30

His Asn Cys Leu His Lys Leu Gly Ile Xaa Asp Phe Gly Ile Thr Ile
 35 40 45

Tyr Gln Asn Gly Asp Ile Ser Pro Leu Val Leu Arg Cys Lys Pro Lys
 50 55 60

Asn Ile Met Thr Ser Phe Gln Ala Ser
 65 70

<210> 1315

1356

<211> 268

<212> PRT

<213> Homo sapiens

<400> 1315

Pro Gly Arg Pro Thr Arg Pro Arg Thr Arg Gly Ile Asn Lys Leu Ile
 1 5 10 15
 Arg Ile Gly Arg Asn Glu Cys Val Val Val Ile Arg Val Asp Lys Glu
 20 25 30
 Lys Gly Tyr Ile Asp Leu Ser Lys Arg Arg Val Ser Pro Glu Glu Ala
 35 40 45
 Ile Lys Cys Glu Asp Lys Phe Thr Lys Ser Lys Thr Val Tyr Ser Ile
 50 55 60
 Leu Arg His Val Ala Glu Val Leu Glu Tyr Thr Lys Asp Glu Gln Leu
 65 70 75 80
 Glu Ser Leu Phe Gln Arg Thr Ala Trp Val Phe Asp Asp Lys Tyr Lys
 85 90 95
 Arg Pro Gly Tyr Gly Ala Tyr Asp Ala Phe Lys His Ala Val Ser Asp
 100 105 110
 Pro Ser Ile Leu Asp Ser Leu Asp Leu Asn Glu Asp Glu Arg Glu Val
 115 120 125
 Leu Ile Asn Asn Ile Asn Arg Arg Leu Thr Pro Gln Ala Val Lys Ile
 130 135 140
 Arg Ala Asp Ile Glu Val Ala Cys Tyr Gly Tyr Glu Gly Ile Asp Ala
 145 150 155 160
 Val Lys Glu Ala Leu Arg Ala Gly Leu Asn Cys Ser Thr Glu Asn Met
 165 170 175
 Pro Ile Lys Ile Asn Leu Ile Ala Pro Pro Arg Tyr Val Met Thr Thr
 180 185 190
 Thr Thr Leu Glu Arg Thr Glu Gly Leu Ser Val Leu Ser Gln Ala Met
 195 200 205
 Ala Val Ile Lys Glu Lys Ile Glu Glu Lys Arg Gly Val Phe Asn Val
 210 215 220
 Gln Met Glu Pro Lys Val Val Thr Asp Thr Asp Glu Thr Glu Leu Ala
 225 230 235 240
 Arg Gln Met Glu Arg Leu Glu Arg Glu Asn Ala Glu Val Asp Gly Asp

1357

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|-----|--|--|--|--|--|--|--|--|--|
| 245 | | | | | | | | | | 250 | | | | | | | | | | 255 | | | | | | | | | |
| Asp | Asp | Ala | Glu | Glu | Met | Glu | Ala | Lys | Ala | Glu | Asp | | | | | | | | | | | | | | | | | | |
| 260 | | | | | | | | | | 265 | | | | | | | | | | | | | | | | | | | |
| <p><210> 1316</p> <p><211> 315</p> <p><212> PRT</p> <p><213> Homo sapiens</p> <p><400> 1316</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gly | Gln | Arg | Ala | Gly | Met | Pro | His | Ala | Gln | Gly | Gly | Trp | Ser | Gly | Pro | | | | | | | | | | | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | | | | | | | | | | | |
| Ala | Ala | Asp | Ser | Ala | Glu | Pro | Ala | Leu | Pro | Ala | Gly | Glu | Pro | Gly | Gly | | | | | | | | | | | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | | | | | | | | | | | |
| Pro | Thr | Leu | Met | Arg | Leu | Asn | Ser | Val | Gln | Ser | Ser | Glu | Arg | Pro | Leu | | | | | | | | | | | | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | | | | | | | | | | | | |
| Phe | Leu | Val | His | Pro | Ile | Glu | Gly | Ser | Thr | Thr | Val | Phe | His | Ser | Leu | | | | | | | | | | | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | | | | | | | | | | | |
| Ala | Ser | Arg | Leu | Ser | Ile | Pro | Thr | Tyr | Gly | Leu | Gln | Cys | Thr | Arg | Ala | | | | | | | | | | | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | | | | | | | | | | | |
| Ala | Pro | Leu | Asp | Ser | Ile | His | Ser | Leu | Ala | Ala | Tyr | Tyr | Ile | Asp | Cys | | | | | | | | | | | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | | | | | | | | | | | |
| Ile | Arg | Gln | Val | Gln | Pro | Glu | Gly | Pro | Tyr | Arg | Val | Ala | Gly | Tyr | Ser | | | | | | | | | | | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | | | | | | | | | | | |
| Tyr | Gly | Ala | Cys | Val | Ala | Phe | Glu | Met | Cys | Ser | Gln | Leu | Gln | Ala | Gln | | | | | | | | | | | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | | | | | | | | | | | |
| Gln | Ser | Pro | Ala | Pro | Thr | His | Asn | Ser | Leu | Phe | Leu | Phe | Asp | Gly | Ser | | | | | | | | | | | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | | | | | | | | | | | |
| Pro | Thr | Tyr | Val | Leu | Ala | Tyr | Thr | Gln | Ser | Tyr | Arg | Ala | Lys | Leu | Thr | | | | | | | | | | | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | | | | | | | | | | | |
| Pro | Gly | Cys | Glu | Ala | Glu | Ala | Glu | Thr | Glu | Ala | Ile | Cys | Phe | Phe | Val | | | | | | | | | | | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | | | | | | | | | | | |
| Gln | Gln | Phe | Thr | Asp | Met | Glu | His | Asn | Arg | Val | Leu | Glu | Ala | Leu | Leu | | | | | | | | | | | | | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | | | | | | | | | | | | | |
| Pro | Leu | Lys | Gly | Leu | Glu | Glu | Arg | Val | Ala | Ala | Ala | Val | Asp | Leu | Ile | | | | | | | | | | | | | | |

1358

Ile Lys Ser His Gln Gly Leu Asp Arg Gln Glu Leu Ser Phe Ala Ala
210 215 220

Arg Ser Phe Tyr Tyr Lys Leu Arg Ala Ala Glu Gln Tyr Thr Pro Lys
225 230 235 240

Ala Lys Tyr His Gly Asn Val Met Leu Leu Arg Ala Lys Thr Gly Gly
245 250 255

Ala Tyr Gly Glu Asp Leu Gly Ala Asp Tyr Asn Leu Ser Gln Val Cys
260 265 270

Asp Gly Lys Val Ser Val His Val Ile Glu Gly Asp His Arg Thr Leu
275 280 285

Leu Glu Gly Ser Gly Leu Glu Ser Ile Ile Ser Ile Ile His Ser Ser
290 295 300

Leu Ala Glu Pro Arg Val Ser Val Arg Glu Gly
305 310 315

<210> 1317

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1359

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1317

Thr Thr Xaa Val Xaa Asp Arg Leu Leu Xaa Thr Ser Gly Ser Pro Gly
 1 5 10 15

Thr Asp Arg Xaa Phe Gly His Glu Xaa Glu Met Ala Pro Asn Ala Ser
 20 25 30

Cys Leu Cys Val His Val Arg Ser Glu Glu Trp Asp Leu Met Thr Phe
 35 40 45

Asp Ala Asn Pro Tyr Asp Ser Val Lys Lys Ile Lys Glu His Val Arg
 50 55 60

Ser Lys Thr Lys Val Pro Val Gln Asp Gln Val Leu Leu Leu Gly Ser
 65 70 75 80

Lys Ile Leu Lys Pro Arg Arg Ser Leu Ser Ser Tyr Gly Ile Asp Lys
 85 90 95

Glu Lys Thr Ile His Leu Thr Leu Lys Val Val Lys Pro Ser Asp Glu
 100 105 110

Glu Leu Pro Leu Phe Leu Val Glu Ser Gly Asp Glu Ala Lys Arg His
 115 120 125

Leu Leu Gln Val Arg Arg Ser Ser Ser Val Ala Gln Val Lys Ala Met
 130 135 140

Ile Glu Thr Lys Thr Gly Ile Ile Pro Glu Thr Gln Ile Val Thr Cys
 145 150 155 160

Asn Gly Lys Arg Leu Glu Asp Gly Lys Met Met Ala Asp Tyr Gly Ile
 165 170 175

Arg Lys Gly Asn Leu Leu Phe Leu Ala Xaa Tyr Cys Ile Gly Gly
 180 185 190

<210> 1318

<211> 230

<212> PRT

<213> Homo sapiens

1360

<400> 1318

```

Arg Asn Leu Gln Glu Thr Ala Ile Met Ala Glu Lys Pro Lys Leu His
 1             5             10             15

Tyr Phe Asn Ala Arg Gly Arg Met Glu Ser Thr Arg Trp Leu Leu Ala
      20             25             30

Ala Ala Gly Val Glu Phe Glu Glu Lys Phe Ile Lys Ser Ala Glu Asp
      35             40             45

Leu Asp Lys Leu Arg Asn Asp Gly Tyr Leu Met Phe Gln Gln Val Pro
      50             55             60

Met Val Glu Ile Asp Gly Met Lys Leu Val Gln Thr Arg Ala Ile Leu
      65             70             75             80

Asn Tyr Ile Ala Ser Lys Tyr Asn Leu Tyr Gly Lys Asp Ile Lys Glu
      85             90             95

Arg Ala Leu Ile Asp Met Tyr Ile Glu Gly Ile Ala Asp Leu Gly Glu
      100             105             110

Met Ile Leu Leu Leu Pro Val Cys Pro Pro Glu Glu Lys Asp Ala Lys
      115             120             125

Leu Ala Leu Ile Lys Glu Lys Ile Lys Asn Arg Tyr Phe Pro Ala Phe
      130             135             140

Glu Lys Val Leu Lys Ser His Gly Gln Asp Tyr Leu Val Gly Asn Lys
      145             150             155             160

Leu Ser Arg Ala Asp Ile His Leu Val Glu Leu Leu Tyr Tyr Val Glu
      165             170             175

Glu Leu Asp Ser Ser Leu Ile Ser Ser Phe Pro Leu Leu Lys Ala Leu
      180             185             190

Lys Thr Arg Ile Ser Asn Leu Pro Thr Val Lys Lys Phe Leu Gln Pro
      195             200             205

Gly Ser Pro Arg Lys Pro Pro Met Asp Glu Lys Ser Leu Glu Glu Ala
      210             215             220

Arg Lys Ile Phe Arg Phe
      225             230

```

<210> 1319

<211> 279

1361

<212> PRT

<213> Homo sapiens

<400> 1319

Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile
 1 5 10 15

Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser
 20 25 30

Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg
 35 40 45

Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu
 50 55 60

Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro
 65 70 75 80

Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn
 85 90 95

Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg
 100 105 110

Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser
 115 120 125

Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly
 130 135 140

Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp
 145 150 155 160

Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser
 165 170 175

Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala
 180 185 190

Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu
 195 200 205

Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp
 210 215 220

Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp
 225 230 235 240

Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr
 245 250 255

1362

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser
 260 265 270

Val Leu Leu Gln Leu Pro Gln
 275

<210> 1320

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1320

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu
 180 185 190

1363

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val
 195 200 205
 Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val
 210 215 220
 Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His
 225 230 235 240
 Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr
 245 250 255
 Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly
 260 265 270
 Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly
 275 280 285
 Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly
 290 295 300
 Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe
 305 310 315 320
 Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp
 325 330 335
 Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe
 340 345 350
 Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu
 355 360 365
 Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala
 370 375 380
 Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu
 385 390 395 400
 Phe Gln Arg Trp Leu Gln
 405

<210> 1321

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1364

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1321

Gln Ser Ala Cys Ser Leu Leu Pro Glu Met Pro Arg Ile Leu Thr Arg
 1 5 10 15

Thr Pro Ser Ser Arg Met Ile Val Leu Arg Leu Met Pro Val Gly Gly
 20 25 30

Arg Arg Pro Ile Val Thr Ser Phe Gly Gly Cys Ser Thr Ala Pro Arg
 35 40 45

Ala Asn Phe Pro Leu Pro Xaa Pro Ala Leu Arg Gln Ser Arg Ser Lys
 50 55 60

Met Ala Val Val Gly Val Ser Ser Val Ser Arg Leu Leu Gly Arg Ser
 65 70 75 80

Arg Pro Gln Leu Gly Arg Pro Met Ser Ser Gly Ala His Gly Glu Glu
 85 90 95

Gly Ser Ala Arg Met Trp Lys Thr Leu Thr Phe Phe Val Ala Leu Pro
 100 105 110

Gly Val Ala Val Ser Met Leu Asn Val Tyr Leu Lys Ser His His Gly
 115 120 125

Glu His Glu Arg Pro Glu Phe Ile Ala Tyr Pro His Leu Arg Ile Arg
 130 135 140

Thr Lys Pro Phe Pro Trp Gly Asp Gly Asn His Thr Leu Phe His Asn
 145 150 155 160

Pro His Val Asn Pro Leu Pro Thr Gly Tyr Glu Asp Glu
 165 170

<210> 1322

<211> 209

<212> PRT

<213> Homo sapiens

<400> 1322

Lys Thr Gln Ala Ala Ser Val Glu Ala Val Lys Met Leu Asp Glu Ile
 1 5 10 15

Leu Leu Gln Leu Ser Ala Ser Val Pro Val Asp Val Met Pro Gly Glu
 20 25 30

1365

Phe Asp Pro Thr Asn Tyr Thr Leu Pro Gln Gln Pro Leu His Pro Cys
 35 40 45
 Met Phe Pro Leu Ala Thr Ala Tyr Ser Thr Leu Gln Leu Val Thr Asn
 50 55 60
 Pro Tyr Gln Ala Thr Ile Asp Gly Val Arg Phe Leu Gly Thr Ser Gly
 65 70 75 80
 Gln Asn Val Ser Asp Ile Phe Arg Tyr Ser Ser Met Glu Asp His Leu
 85 90 95
 Glu Ile Leu Glu Trp Thr Leu Arg Val Arg His Ile Ser Pro Thr Ala
 100 105 110
 Pro Asp Thr Leu Gly Cys Tyr Pro Phe Tyr Lys Thr Asp Pro Phe Ile
 115 120 125
 Phe Pro Glu Cys Pro His Val Tyr Phe Cys Gly Asn Thr Pro Ser Phe
 130 135 140
 Gly Ser Lys Ile Ile Arg Gly Pro Glu Asp Gln Thr Val Leu Leu Val
 145 150 155 160
 Thr Val Pro Asp Phe Ser Ala Thr Gln Thr Ala Cys Leu Val Asn Leu
 165 170 175
 Arg Ser Leu Ala Cys Gln Pro Ile Ser Phe Ser Gly Phe Gly Ala Glu
 180 185 190
 Asp Asp Asp Leu Gly Gly Leu Gly Trp Ala Pro Asp Ser Lys Lys Trp
 195 200 205

Phe

<210> 1323

<211> 291

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

1366

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1323

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Val | Ala | Thr | Thr | His | Glu | Pro | Ala | Ser | Val | Pro | Ala | Pro | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Leu | Leu | Ser | Gly | Ala | Glu | Pro | Glu | Gly | Gly | Asn | Xaa | Ala | Arg |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Pro | Gly | Ala | Arg | Glu | Gln | Pro | Gln | Ser | Pro | Pro | Pro | Ala | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ala | Gly | Ser | Leu | Ala | Thr | Xaa | Ala | Pro | Pro | Ser | Ser | Gly | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Pro | Gly | Cys | Phe | Arg | Leu | Arg | Leu | Trp | Met | Leu | Arg | Leu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Asn | Met | Lys | Val | Leu | Leu | Ala | Ala | Ala | Leu | Ile | Ala | Gly | Ser |
| | | | | 85 | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Phe | Leu | Leu | Leu | Pro | Gly | Pro | Ser | Ala | Ala | Asp | Glu | Lys | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Pro | Lys | Val | Thr | Val | Lys | Val | Tyr | Phe | Asp | Leu | Arg | Ile | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Asp | Val | Gly | Arg | Val | Ile | Phe | Gly | Leu | Phe | Gly | Lys | Thr | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Thr | Val | Asp | Asn | Phe | Val | Ala | Leu | Ala | Thr | Gly | Glu | Lys | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Tyr | Lys | Asn | Ser | Lys | Phe | His | Arg | Val | Ile | Lys | Asp | Phe | Met |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Gly | Gly | Asp | Phe | Thr | Arg | Gly | Asp | Gly | Thr | Gly | Gly | Lys | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Tyr | Gly | Glu | Arg | Phe | Pro | Asp | Glu | Asn | Phe | Lys | Leu | Lys | His | Tyr |
| | 195 | | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Gly | Trp | Val | Ser | Met | Ala | Asn | Ala | Gly | Lys | Asp | Thr | Asn | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Phe | Phe | Ile | Thr | Thr | Val | Lys | Thr | Ala | Trp | Leu | Asp | Gly | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Val | Phe | Gly | Lys | Val | Leu | Glu | Gly | Met | Glu | Val | Val | Arg | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |

1367

Val Glu Ser Thr Lys Thr Asp Ser Arg Asp Lys Pro Leu Lys Asp Val
260 265 270

Ile Ile Ala Asp Cys Gly Lys Ile Glu Val Glu Lys Pro Phe Ala Ile
275 280 285

Ala Lys Glu
290

<210> 1324

<211> 150

<212> PRT

<213> Homo sapiens

<400> 1324

Glu Cys Leu Val Arg Ser Lys Asn Ile Thr Gln Ile Val Gly His Ser
1 5 10 15

Gly Cys Glu Ala Lys Ser Ile Gln Asn Arg Ala Cys Leu Gly Gln Cys
20 25 30

Phe Ser Tyr Ser Val Pro Asn Thr Phe Pro Gln Ser Thr Glu Ser Leu
35 40 45

Val His Cys Asp Ser Cys Met Pro Ala Gln Ser Met Trp Glu Ile Val
50 55 60

Thr Leu Glu Cys Pro Gly His Glu Glu Val Pro Arg Val Asp Lys Leu
65 70 75 80

Val Glu Lys Ile Leu His Cys Ser Cys Gln Ala Cys Gly Lys Glu Pro
85 90 95

Ser His Glu Gly Leu Ser Val Tyr Val Gln Gly Glu Asp Gly Pro Gly
100 105 110

Ser Gln Pro Gly Thr His Pro His Pro His Pro His Pro His Pro Gly
115 120 125

Gly Gln Thr Pro Glu Pro Glu Asp Pro Pro Gly Ala Pro His Thr Glu
130 135 140

Glu Glu Gly Ala Glu Asp
145 150

<210> 1325

<211> 56

1368

<212> PRT

<213> Homo sapiens

<400> 1325

Glu Ile Asn Ile Ser Arg Lys Gly Glu Ser Arg Phe Tyr Lys Met Ser
1 5 10 15

Gln Leu Ser Asn Ile Trp Gly Ser Asp Ser Phe Phe Val Arg Thr Phe
20 25 30

Glu Thr Ser Lys Gln Pro Leu Phe Leu Lys Asn Ser Gly Phe Thr Leu
35 40 45

Thr His Val Ser Phe Thr Pro Phe
50 55

<210> 1326

<211> 486

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (438)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (447)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1326

Arg Leu Pro Leu Gly Ser Arg Ser Pro Ser Glu Ala Ala Gly Ala Glu
1 5 10 15

Thr Ala Pro Ser Ser Leu Ser Ala Ala Met Thr Pro Leu Val Ser Arg
20 25 30

Leu Xaa Arg Leu Trp Ala Ile Met Arg Lys Pro Arg Ala Ala Val Gly
35 40 45

Ser Gly His Arg Lys Gln Ala Ala Ser Gln Glu Gly Arg Gln Lys His
50 55 60

1369

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Asn | Asn | Ser | Gln | Ala | Lys | Pro | Ser | Ala | Cys | Asp | Gly | Leu | Ala | 65 | 70 | 75 | 80 |
| Arg | Gln | Pro | Glu | Glu | Val | Val | Leu | Gln | Ala | Ser | Val | Ser | Ser | Tyr | His | 85 | 90 | 95 | |
| Leu | Phe | Arg | Asp | Val | Ala | Glu | Val | Thr | Ala | Phe | Arg | Gly | Ser | Leu | Leu | 100 | 105 | 110 | |
| Ser | Trp | Tyr | Asp | Gln | Glu | Lys | Arg | Asp | Leu | Pro | Trp | Arg | Arg | Arg | Ala | 115 | 120 | 125 | |
| Glu | Asp | Glu | Met | Asp | Leu | Asp | Arg | Arg | Ala | Tyr | Ala | Val | Trp | Val | Ser | 130 | 135 | 140 | |
| Glu | Val | Met | Leu | Gln | Gln | Thr | Gln | Val | Ala | Thr | Val | Ile | Asn | Tyr | Tyr | 145 | 150 | 155 | 160 |
| Thr | Gly | Trp | Met | Gln | Lys | Trp | Pro | Thr | Leu | Gln | Asp | Leu | Ala | Ser | Ala | 165 | 170 | 175 | |
| Ser | Leu | Glu | Glu | Val | Asn | Gln | Leu | Trp | Ala | Gly | Leu | Gly | Tyr | Tyr | Ser | 180 | 185 | 190 | |
| Arg | Gly | Arg | Arg | Leu | Gln | Glu | Gly | Ala | Arg | Lys | Val | Val | Glu | Glu | Leu | 195 | 200 | 205 | |
| Gly | Gly | His | Met | Pro | Arg | Thr | Ala | Glu | Thr | Leu | Gln | Gln | Leu | Leu | Pro | 210 | 215 | 220 | |
| Gly | Val | Gly | Arg | Tyr | Thr | Ala | Gly | Ala | Ile | Ala | Ser | Ile | Ala | Phe | Gly | 225 | 230 | 235 | 240 |
| Gln | Ala | Thr | Gly | Val | Val | Asp | Gly | Asn | Val | Ala | Arg | Val | Leu | Cys | Arg | 245 | 250 | 255 | |
| Val | Arg | Ala | Ile | Gly | Ala | Asp | Pro | Ser | Ser | Thr | Leu | Val | Ser | Gln | Gln | 260 | 265 | 270 | |
| Leu | Trp | Gly | Leu | Ala | Gln | Gln | Leu | Val | Asp | Pro | Ala | Arg | Pro | Gly | Asp | 275 | 280 | 285 | |
| Phe | Asn | Gln | Ala | Ala | Met | Glu | Leu | Gly | Ala | Thr | Val | Cys | Thr | Pro | Gln | 290 | 295 | 300 | |
| Arg | Pro | Leu | Cys | Ser | Gln | Cys | Pro | Val | Glu | Ser | Leu | Cys | Arg | Ala | Arg | 305 | 310 | 315 | 320 |
| Gln | Arg | Val | Glu | Gln | Glu | Gln | Leu | Leu | Ala | Ser | Gly | Ser | Leu | Ser | Gly | 325 | 330 | 335 | |

1370

Ser Pro Asp Val Glu Glu Cys Ala Pro Asn Thr Gly Gln Cys His Leu
 340 345 350
 Cys Leu Pro Pro Ser Glu Pro Trp Asp Gln Thr Leu Gly Val Val Asn
 355 360 365
 Phe Pro Arg Lys Ala Ser Arg Lys Pro Pro Arg Glu Glu Ser Ser Ala
 370 375 380
 Thr Cys Val Leu Glu Gln Pro Gly Ala Leu Gly Ala Gln Ile Leu Leu
 385 390 395 400
 Val Gln Arg Pro Asn Ser Gly Leu Leu Ala Gly Leu Trp Glu Phe Pro
 405 410 415
 Ser Val Thr Trp Glu Pro Ser Glu Gln Leu Gln Arg Lys Ala Leu Leu
 420 425 430
 Gln Glu Leu Gln Arg Xaa Ala Gly Pro Leu Pro Ala Thr His Xaa Arg
 435 440 445
 His Leu Gly Glu Val Val His Thr Phe Ser His Ile Lys Leu Thr Tyr
 450 455 460
 Gln Val Tyr Gly Leu Ala Leu Glu Gly Gln Thr Pro Val Thr Thr Val
 465 470 475 480
 Pro Pro Gly Ala Arg Cys
 485

<210> 1327

<211> 88

<212> PRT

<213> Homo sapiens

<400> 1327

Lys Thr Leu Phe Thr Tyr Ser Phe His Gly Tyr Asn Thr Leu Ala Asp
 1 5 10 15
 Phe Leu Leu Ala Leu Gly Ala Met Ile Leu Ile Thr Phe Cys Lys Val
 20 25 30
 Thr Asn Val Ile His Ser Thr Leu Cys Gly Ser His Leu Phe Arg Leu
 35 40 45
 Met Cys Phe Gly Glu Arg Lys Lys Phe Leu Ala Glu Tyr Tyr Phe Glu
 50 55 60
 Leu Ser Arg Thr Leu Ser His Gln Arg Gln Phe Phe Ser Val Gln Phe

1371

65

70

75

80

Pro Ile Pro Asp Asn Leu Leu Lys
85

<210> 1328

<211> 424

<212> PRT

<213> Homo sapiens

<400> 1328

Ile Arg Val Ser Phe Met Asn Asn Gln Lys Gln Gln Lys Pro Thr Leu
1 5 10 15

Ser Gly Gln Arg Phe Lys Thr Arg Lys Arg Asp Glu Lys Glu Arg Phe
20 25 30

Asp Pro Thr Gln Phe Gln Asp Cys Ile Ile Gln Gly Leu Thr Glu Thr
35 40 45

Gly Thr Asp Leu Glu Ala Val Ala Lys Phe Leu Asp Ala Ser Gly Ala
50 55 60

Lys Leu Asp Tyr Arg Arg Tyr Ala Glu Thr Leu Phe Asp Ile Leu Val
65 70 75 80

Ala Gly Gly Met Leu Ala Pro Gly Gly Thr Leu Ala Asp Asp Met Met
85 90 95

Arg Thr Asp Val Cys Val Phe Ala Ala Gln Glu Asp Leu Glu Thr Met
100 105 110

Gln Ala Phe Ala Gln Val Phe Asn Lys Leu Ile Arg Arg Tyr Lys Tyr
115 120 125

Leu Glu Lys Gly Phe Glu Asp Glu Val Lys Lys Leu Leu Leu Phe Leu
130 135 140

Lys Gly Phe Ser Glu Ser Glu Arg Asn Lys Leu Ala Met Leu Thr Gly
145 150 155 160

Val Leu Leu Ala Asn Gly Thr Leu Asn Ala Ser Ile Leu Asn Ser Leu
165 170 175

Tyr Asn Glu Asn Leu Val Lys Glu Gly Val Ser Ala Ala Phe Ala Val
180 185 190

Lys Leu Phe Lys Ser Trp Ile Asn Glu Lys Asp Ile Asn Ala Val Ala
195 200 205

1372

Ala Ser Leu Arg Lys Val Ser Met Asp Asn Arg Leu Met Glu Leu Phe
 210 215 220
 Pro Ala Asn Lys Gln Ser Val Glu His Phe Thr Lys Tyr Phe Thr Glu
 225 230 235 240
 Ala Gly Leu Lys Glu Leu Ser Glu Tyr Val Arg Asn Gln Gln Thr Ile
 245 250 255
 Gly Ala Arg Lys Glu Leu Gln Lys Glu Leu Gln Glu Gln Met Ser Arg
 260 265 270
 Gly Asp Pro Phe Lys Asp Ile Ile Leu Tyr Val Lys Glu Glu Met Lys
 275 280 285
 Lys Asn Asn Ile Pro Glu Pro Val Val Ile Gly Ile Val Trp Ser Ser
 290 295 300
 Val Met Ser Thr Val Glu Trp Asn Lys Lys Glu Glu Leu Val Ala Glu
 305 310 315 320
 Gln Ala Ile Lys His Leu Lys Gln Tyr Ser Pro Leu Leu Ala Ala Phe
 325 330 335
 Thr Thr Gln Gly Gln Ser Glu Leu Thr Leu Leu Leu Lys Ile Gln Glu
 340 345 350
 Tyr Cys Tyr Asp Asn Ile His Phe Met Lys Ala Phe Gln Lys Ile Val
 355 360 365
 Val Leu Phe Tyr Lys Ala Glu Val Leu Ser Glu Glu Pro Ile Leu Lys
 370 375 380
 Trp Tyr Lys Asp Ala His Val Ala Lys Gly Lys Ser Val Phe Leu Glu
 385 390 395 400
 Gln Met Lys Lys Phe Val Glu Trp Leu Lys Asn Ala Glu Glu Glu Ser
 405 410 415
 Glu Ser Glu Ala Glu Glu Gly Asp
 420

<210> 1329

<211> 558

<212> PRT

<213> Homo sapiens

<400> 1329

1373

Trp Tyr Cys Ser Val Gly Leu Ala Ser Thr Ala Gly Glu Gln Ala Ala
 1 5 10 15
 Ala Val Ala Ala Ala Phe Ser Leu His Pro Asp Tyr Ala Met Leu Gly
 20 25 30
 Phe Val Gly Arg Val Ala Ala Ala Pro Ala Ser Gly Ala Leu Arg Arg
 35 40 45
 Leu Thr Pro Ser Ala Ser Leu Pro Pro Ala Gln Leu Leu Leu Arg Ala
 50 55 60
 Ala Pro Thr Ala Val His Pro Val Arg Asp Tyr Ala Ala Gln Thr Ser
 65 70 75 80
 Pro Ser Pro Lys Ala Gly Ala Ala Thr Gly Arg Ile Val Ala Val Ile
 85 90 95
 Gly Ala Val Val Asp Val Gln Phe Asp Glu Gly Leu Pro Pro Ile Leu
 100 105 110
 Asn Ala Leu Glu Val Gln Gly Arg Glu Thr Arg Leu Val Leu Glu Val
 115 120 125
 Ala Gln His Leu Gly Glu Ser Thr Val Arg Thr Ile Ala Met Asp Gly
 130 135 140
 Thr Glu Gly Leu Val Arg Gly Gln Lys Val Leu Asp Ser Gly Ala Pro
 145 150 155 160
 Ile Lys Ile Pro Val Gly Pro Glu Thr Leu Gly Arg Ile Met Asn Val
 165 170 175
 Ile Gly Glu Pro Ile Asp Glu Arg Gly Pro Ile Lys Thr Lys Gln Phe
 180 185 190
 Ala Pro Ile His Ala Glu Ala Pro Glu Phe Met Glu Met Ser Val Glu
 195 200 205
 Gln Glu Ile Leu Val Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro
 210 215 220
 Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly
 225 230 235 240
 Lys Thr Val Leu Ile Met Glu Leu Ile Asn Asn Val Ala Lys Ala His
 245 250 255
 Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
 260 265 270

1374

Asn Asp Leu Tyr His Glu Met Ile Glu Ser Gly Val Ile Asn Leu Lys
 275 280 285

Asp Ala Thr Ser Lys Val Ala Leu Val Tyr Gly Gln Met Asn Glu Pro
 290 295 300

Pro Gly Ala Arg Ala Arg Val Ala Leu Thr Gly Leu Thr Val Ala Glu
 305 310 315 320

Tyr Phe Arg Asp Gln Glu Gly Gln Asp Val Leu Leu Phe Ile Asp Asn
 325 330 335

Ile Phe Arg Phe Thr Gln Ala Gly Ser Glu Val Ser Ala Leu Leu Gly
 340 345 350

Arg Ile Pro Ser Ala Val Gly Tyr Gln Pro Thr Leu Ala Thr Asp Met
 355 360 365

Gly Thr Met Gln Glu Arg Ile Thr Thr Thr Lys Lys Gly Ser Ile Thr
 370 375 380

Ser Val Gln Ala Ile Tyr Val Pro Ala Asp Asp Leu Thr Asp Pro Ala
 385 390 395 400

Pro Ala Thr Thr Phe Ala His Leu Asp Ala Thr Thr Val Leu Ser Arg
 405 410 415

Ala Ile Ala Glu Leu Gly Ile Tyr Pro Ala Val Asp Pro Leu Asp Ser
 420 425 430

Thr Ser Arg Ile Met Asp Pro Asn Ile Val Gly Ser Glu His Tyr Asp
 435 440 445

Val Ala Arg Gly Val Gln Lys Ile Leu Gln Asp Tyr Lys Ser Leu Gln
 450 455 460

Asp Ile Ile Ala Ile Leu Gly Met Asp Glu Leu Ser Glu Glu Asp Lys
 465 470 475 480

Leu Thr Val Ser Arg Ala Arg Lys Ile Gln Arg Phe Leu Ser Gln Pro
 485 490 495

Phe Gln Val Ala Glu Val Phe Thr Gly His Met Gly Lys Leu Val Pro
 500 505 510

Leu Lys Glu Thr Ile Lys Gly Phe Gln Gln Ile Leu Ala Gly Glu Tyr
 515 520 525

Asp His Leu Pro Glu Gln Ala Phe Tyr Met Val Gly Pro Ile Glu Glu
 530 535 540

1375

Ala Val Ala Lys Ala Asp Lys Leu Ala Glu Glu His Ser Ser
545 550 555

<210> 1330

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1330

Thr Thr Pro Leu Ser Gln Ile Val Ala Arg Gly Leu Ile Ala Arg Gly
1 5 10 15

Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln Arg Ala
20 25 30

Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu Asp Met
35 40 45

Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile Arg Val
50 55 60

Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln Ala Thr
65 70 75 80

Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile Pro Leu
85 90 95

Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu Phe Leu
100 105 110

Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro Val Glu
115 120 125

Gly Gly Phe Trp Ala Cys
130

<210> 1331

<211> 188

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1376

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1331

Ile Arg His Glu Pro Ser Arg Cys Arg Ser Arg Thr Ala Ala Val Cys
 1 5 10 15

Ser Pro Pro Pro Cys Pro Pro Trp Arg Arg Pro Arg Gly Pro Trp Thr
 20 25 30

Ala Lys Ser Pro Pro Trp Pro Pro Ala Arg Pro Arg Trp Gln Trp Thr
 35 40 45

Arg Ala Leu Asn Ser Thr Ala Ala Pro Pro Arg Ser Pro Pro Ala Pro
 50 55 60

Cys Pro Cys Arg Pro Asn Ser Ala Arg Arg Lys Arg Arg Pro Pro Ala
 65 70 75 80

Asn Cys Arg Ala Ser Ser Gly Trp Leu Ala Ala Trp Lys Pro Ser Arg
 85 90 95

Thr Gly Pro Ala Ala Arg Pro Arg Arg Pro Val Pro Asp Thr Ser Phe
 100 105 110

His Ser Ser Pro Val Gln Ala Ala Val His Phe Val Gly Tyr Lys Ile
 115 120 125

Asn His Gly Pro Ala Met Xaa Leu Xaa Phe Leu Leu Gln Leu Arg Leu
 130 135 140

Gly Arg Gly Pro Gly Leu Pro Arg Glu Asn Val Leu Glu Thr Ala Pro
 145 150 155 160

Val Phe Leu Ala Trp Phe Ile Cys Pro Gly Ser Gly Ser Asp Ser Gly
 165 170 175

Gly Ser Glu Thr Ser Val Ala Leu Ser Tyr Trp Gly
 180 185

<210> 1332

<211> 237

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

1377

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1332

Asp Asp Arg Arg Xaa Asp Ala Glu Ala Asp Lys Met Ala Ala Ala Ala
 1 5 10 15

Val Gln Gly Gly Arg Ser Gly Gly Ser Gly Gly Cys Ser Gly Ala Gly
 20 25 30

Gly Ala Ser Asn Cys Gly Thr Gly Ser Gly Arg Ser Gly Leu Leu Asp
 35 40 45

Lys Trp Lys Ile Asp Asp Lys Pro Val Lys Ile Asp Lys Trp Asp Gly
 50 55 60

Ser Ala Val Lys Asn Ser Leu Asp Asp Ser Ala Lys Lys Val Leu Leu
 65 70 75 80

Glu Lys Tyr Lys Tyr Val Glu Asn Phe Gly Leu Ile Asp Gly Arg Leu
 85 90 95

Thr Ile Cys Thr Ile Ser Cys Phe Phe Ala Ile Val Ala Leu Ile Trp
 100 105 110

Asp Tyr Met His Pro Phe Pro Glu Ser Lys Pro Val Leu Ala Leu Cys
 115 120 125

Val Ile Ser Tyr Phe Val Met Met Gly Ile Leu Thr Ile Tyr Thr Ser
 130 135 140

Tyr Lys Glu Lys Ser Ile Phe Leu Val Ala His Arg Lys Asp Pro Thr
 145 150 155 160

Gly Met Asp Pro Asp Asp Ile Trp Gln Leu Ser Ser Ser Leu Lys Arg
 165 170 175

Phe Asp Asp Lys Tyr Thr Leu Lys Leu Thr Phe Ile Ser Gly Arg Thr
 180 185 190

Lys Gln Gln Arg Glu Ala Glu Phe Thr Lys Ser Ile Ala Lys Phe Phe
 195 200 205

Asp His Ser Gly Thr Leu Val Met Asp Ala Tyr Glu Pro Glu Ile Ser
 210 215 220

Arg Leu His Asp Ser Leu Ala Ile Glu Arg Lys Ile Lys
 225 230 235

<210> 1333

1378

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1333

Thr Thr Ala Asn Pro Leu Lys Thr Arg Gly Leu Ala Leu Val Ala Gln
 1 5 10 15

Pro Lys Val Ala Leu Gln Ile Phe Glu Arg Ala Thr Ala Thr Phe Leu
 20 25 30

Pro Ser Gln Leu Ser Leu Asp Phe Ser Glu Ser Gly Tyr Cys Tyr Pro
 35 40 45

Asn Val Cys Leu Tyr Glu Cys Ile
 50 55

<210> 1334

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1334

Ser His Pro Ala Cys Ala Lys Val Glu Tyr Ala Tyr Ser Asp Asn Ser
 1 5 10 15

Leu Asp Pro Asp Asp Glu Asp Ser Asp Tyr His Gln Glu Ala Tyr Lys
 20 25 30

Glu Ser Tyr Lys Asp Arg Arg Arg Arg Ala His Thr Gln Ala Glu Gln
 35 40 45

Lys Arg Arg Asp Ala Ile Lys Arg Gly Tyr Asp Asp Leu Gln Thr Ile
 50 55 60

Val Pro Thr Cys Gln Gln Gln Asp Phe Ser Ile Gly Ser Gln Lys Leu
 65 70 75 80

Ser Lys Ala Ile Val Leu Gln Lys Thr Ile Asp Tyr Ile Gln Phe Leu
 85 90 95

His Lys Glu Lys Lys Lys Gln Glu Glu Glu Val Ser Thr Leu Arg Lys
 100 105 110

Asp Val Thr Ala Leu Lys Ile Met Lys Val Asn Tyr Glu Gln Ile Val
 115 120 125

Lys Ala His Gln Asp Asn Pro His Glu Gly Glu Asp Gln Val Ser Asp
 130 135 140

1379

Gln Val Lys Phe Asn Val Phe Gln Gly Ile Met Asp Ser Leu Phe Gln
145 150 155 160

Ser Phe Asn Ala Ser Ile Ser Val Ala Ser Phe Gln Glu Leu Ser Ala
165 170 175

Cys Val Phe Ser Trp Ile Glu Glu His Cys Lys Pro Gln Thr Leu Arg
180 185 190

Glu Ile Val Ile Gly Val Leu His Gln Leu Lys Asn Gln Leu Tyr
195 200 205

<210> 1335

<211> 1005

<212> PRT

<213> Homo sapiens

<400> 1335

Arg Val Leu Gln Tyr Val Val Pro Glu Val Lys Asp Leu Tyr Asn Trp
1 5 10 15

Leu Glu Val Glu Phe Asn Pro Leu Lys Leu Cys Glu Arg Val Thr Lys
20 25 30

Val Leu Asn Trp Val Arg Glu Gln Pro Glu Lys Glu Pro Glu Leu Gln
35 40 45

Gln Tyr Val Pro Gln Leu Gln Asn Asn Thr Ile Leu Arg Leu Leu Gln
50 55 60

Gln Val Ser Gln Ile Tyr Gln Ser Ile Glu Phe Ser Arg Leu Thr Ser
65 70 75 80

Leu Val Pro Phe Val Asp Ala Phe Gln Leu Glu Arg Ala Ile Val Asp
85 90 95

Ala Ala Arg His Cys Asp Leu Gln Val Arg Ile Asp His Thr Ser Arg
100 105 110

Thr Leu Ser Phe Gly Ser Asp Leu Asn Tyr Ala Thr Arg Glu Asp Ala
115 120 125

Pro Ile Gly Pro His Leu Gln Ser Met Pro Ser Glu Gln Ile Arg Asn
130 135 140

Gln Leu Thr Ala Met Ser Ser Val Leu Ala Lys Ala Leu Glu Val Ile
145 150 155 160

1380

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Ala | His | Ile | Leu | Gln | Glu | Lys | Glu | Glu | Gln | His | Gln | Leu | Ala | 165 | 170 | 175 | |
| Val | Thr | Ala | Tyr | Leu | Lys | Asn | Ser | Arg | Lys | Glu | His | Gln | Arg | Ile | Leu | 180 | 185 | 190 | |
| Ala | Arg | Arg | Gln | Thr | Ile | Glu | Glu | Arg | Lys | Glu | Arg | Leu | Glu | Ser | Leu | 195 | 200 | 205 | |
| Asn | Ile | Gln | Arg | Glu | Lys | Glu | Glu | Leu | Glu | Gln | Arg | Glu | Ala | Glu | Leu | 210 | 215 | 220 | |
| Gln | Lys | Val | Arg | Lys | Ala | Glu | Glu | Glu | Arg | Leu | Arg | Gln | Glu | Ala | Lys | 225 | 230 | 235 | 240 |
| Glu | Arg | Glu | Lys | Glu | Arg | Ile | Leu | Gln | Glu | His | Glu | Gln | Ile | Lys | Lys | 245 | 250 | 255 | |
| Lys | Thr | Val | Arg | Glu | Arg | Leu | Glu | Gln | Ile | Lys | Lys | Thr | Glu | Leu | Gly | 260 | 265 | 270 | |
| Ala | Lys | Ala | Phe | Lys | Asp | Ile | Asp | Ile | Glu | Asp | Leu | Glu | Glu | Leu | Asp | 275 | 280 | 285 | |
| Pro | Asp | Phe | Ile | Met | Ala | Lys | Gln | Val | Glu | Gln | Leu | Glu | Lys | Glu | Lys | 290 | 295 | 300 | |
| Lys | Glu | Leu | Gln | Glu | Arg | Leu | Lys | Asn | Gln | Glu | Lys | Lys | Ile | Asp | Tyr | 305 | 310 | 315 | 320 |
| Phe | Glu | Arg | Ala | Lys | Arg | Leu | Glu | Glu | Ile | Pro | Leu | Ile | Lys | Ser | Ala | 325 | 330 | 335 | |
| Tyr | Glu | Glu | Gln | Arg | Ile | Lys | Asp | Met | Asp | Leu | Trp | Glu | Gln | Gln | Glu | 340 | 345 | 350 | |
| Glu | Glu | Arg | Ile | Thr | Thr | Met | Gln | Leu | Glu | Arg | Glu | Lys | Ala | Leu | Glu | 355 | 360 | 365 | |
| His | Lys | Asn | Arg | Met | Ser | Arg | Met | Leu | Glu | Asp | Arg | Asp | Leu | Phe | Val | 370 | 375 | 380 | |
| Met | Arg | Leu | Lys | Ala | Ala | Arg | Gln | Ser | Val | Tyr | Glu | Glu | Lys | Leu | Lys | 385 | 390 | 395 | 400 |
| Gln | Phe | Glu | Glu | Arg | Leu | Ala | Glu | Glu | Arg | His | Asn | Arg | Leu | Glu | Glu | 405 | 410 | 415 | |
| Arg | Lys | Arg | Gln | Arg | Lys | Glu | Glu | Arg | Arg | Ile | Thr | Tyr | Tyr | Arg | Glu | 420 | 425 | 430 | |

1381

Lys Glu Glu Glu Glu Gln Arg Arg Ala Glu Glu Gln Met Leu Lys Glu
435 440 445

Arg Glu Glu Arg Glu Arg Ala Glu Arg Ala Lys Arg Glu Glu Glu Leu
450 455 460

Arg Glu Tyr Gln Glu Arg Val Lys Lys Leu Glu Glu Val Glu Arg Lys
465 470 475 480

Lys Arg Gln Arg Glu Leu Glu Ile Glu Glu Arg Glu Arg Arg Arg Glu
485 490 495

Glu Glu Arg Arg Leu Gly Asp Ser Ser Leu Ser Arg Lys Asp Ser Arg
500 505 510

Trp Gly Asp Arg Asp Ser Glu Gly Thr Trp Arg Lys Gly Pro Glu Ala
515 520 525

Asp Ser Glu Trp Arg Arg Gly Pro Pro Glu Lys Glu Trp Arg Arg Gly
530 535 540

Glu Gly Arg Asp Glu Asp Arg Ser His Arg Arg Asp Glu Glu Arg Pro
545 550 555 560

Arg Arg Leu Gly Asp Asp Glu Asp Arg Glu Pro Ser Leu Arg Pro Asp
565 570 575

Asp Asp Arg Val Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg
580 585 590

Arg Gly Pro Glu Glu Asp Arg Phe Ser Arg Arg Gly Ala Asp Asp Asp
595 600 605

Arg Pro Ser Trp Arg Asn Thr Asp Asp Asp Arg Pro Pro Arg Arg Ile
610 615 620

Ala Asp Glu Asp Arg Gly Asn Trp Arg His Ala Asp Asp Asp Arg Pro
625 630 635 640

Pro Arg Arg Gly Leu Asp Glu Asp Arg Gly Ser Trp Arg Thr Ala Asp
645 650 655

Glu Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg
660 665 670

Arg Gly Gly Ala Asp Asp Glu Arg Ser Ser Trp Arg Asn Ala Asp Asp
675 680 685

Asp Arg Gly Pro Arg Arg Gly Leu Asp Asp Asp Arg Gly Pro Arg Arg
690 695 700

1382

Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg
705 710 715 720

Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Leu
725 730 735

Asp Asp Asp Arg Gly Pro Trp Arg Asn Ala Asp Asp Asp Arg Ile Pro
740 745 750

Arg Arg Gly Ala Glu Asp Asp Arg Gly Pro Trp Arg Asn Met Asp Asp
755 760 765

Asp Arg Leu Ser Arg Arg Ala Asp Asp Asp Arg Phe Pro Arg Arg Gly
770 775 780

Asp Asp Ser Arg Pro Gly Pro Trp Arg Pro Leu Val Lys Pro Gly Gly
785 790 795 800

Trp Arg Glu Lys Glu Lys Ala Arg Glu Glu Ser Trp Gly Pro Pro Arg
805 810 815

Glu Ser Arg Pro Ser Glu Glu Arg Glu Trp Asp Arg Glu Lys Glu Arg
820 825 830

Asp Arg Asp Asn Gln Asp Arg Glu Glu Asn Asp Lys Asp Pro Glu Arg
835 840 845

Glu Arg Asp Arg Glu Arg Asp Val Asp Arg Glu Asp Arg Phe Arg Arg
850 855 860

Pro Arg Asp Glu Gly Gly Trp Arg Arg Gly Pro Ala Glu Glu Ser Ser
865 870 875 880

Ser Trp Arg Asp Ser Ser Arg Arg Asp Asp Arg Asp Arg Asp Asp Arg
885 890 895

Arg Arg Glu Arg Asp Asp Arg Arg Asp Leu Arg Glu Arg Arg Asp Leu
900 905 910

Arg Asp Asp Arg Asp Arg Arg Gly Pro Pro Leu Arg Ser Glu Arg Glu
915 920 925

Glu Val Ser Ser Trp Arg Arg Ala Asp Asp Arg Lys Asp Asp Arg Val
930 935 940

Glu Glu Arg Asp Pro Pro Arg Arg Val Pro Pro Pro Ala Leu Ser Arg
945 950 955 960

Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Glu Gly Glu Lys Glu Lys
965 970 975

1383

Ala Ser Trp Arg Ala Glu Lys Asp Arg Glu Ser Leu Arg Arg Thr Lys
980 985 990

Asn Glu Thr Asp Glu Asp Gly Trp Thr Thr Val Arg Arg
995 1000 1005

```
<210> 1336
<211> 231
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (73)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 1336
Ala Gly Ile His Pro Met Asn Ser Ile Ser Ser Leu Asp Arg Thr Arg
1 5 10 15

1384

Met Met Thr Pro Phe Met Gly Ile Ser Pro Leu Pro Gly Gly Glu Arg
20 25 30

Phe Pro Tyr Pro Ser Phe His Trp Asp Pro Ile Arg Asp Pro Leu Arg
35 40 45

Asp Pro Tyr Xaa Glu Leu Asp Ile His Arg Arg Asp Pro Leu Gly Xaa
50 55 60

Asp Phe Leu Leu Arg Asn Asp Pro Xaa His Arg Leu Ser Thr Xaa Arg
65 70 75 80

Leu Xaa Xaa Ala Asp Arg Ser Phe Arg Asp Arg Glu Pro His Asp Tyr
85 90 95

Ser His His His His His His His His Pro Leu Ser Val Asp Pro Arg
100 105 110

Arg Glu His Glu Arg Xaa Gly His Leu Asp Glu Arg Glu Arg Leu His
115 120 125

Met Leu Arg Glu Asp Tyr Glu His Thr Arg Leu His Ser Val His Pro
130 135 140

Ala Ser Leu Asp Gly His Leu Pro His Pro Ser Leu Ile Thr Pro Gly
145 150 155 160

Leu Pro Ser Met His Tyr Pro Arg Ile Ser Pro Thr Ala Gly Asn Gln
165 170 175

Asn Gly Leu Leu Asn Lys Thr Pro Pro Thr Ala Ala Leu Ser Ala Pro
180 185 190

Pro Pro Leu Ile Ser Thr Leu Gly Gly Arg Pro Val Ser Pro Arg Arg
195 200 205

Thr Thr Pro Leu Ser Ala Glu Ile Arg Glu Arg Pro Pro Ser His Thr
210 215 220

Leu Lys Asp Ile Glu Ala Arg
225 230

<210> 1337

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1337

1385

Gly Val Glu Gly Leu Lys Asp Ala Gln Met Arg Asp Leu Leu Ser Pro
 1 5 10 15
 Pro Thr Asp Asn Arg Pro Gly Gln Met Asp Asn Arg Ser Lys Leu Arg
 20 25 30
 Asn Ile Val Glu Leu Arg Leu Ala Gly Leu Asp Ile Thr Asp Ala Ser
 35 40 45
 Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu Ser Lys Leu His Leu
 50 55 60
 Ser Tyr Cys Asn His Val Thr Asp Gln Ser Ile Asn Leu Leu Thr Ala
 65 70 75 80
 Val Gly Thr Thr Thr Arg Asp Ser Leu Thr Glu Ile Asn Leu Ser Asp
 85 90 95
 Cys Asn Lys Val Thr Asp Gln Cys Leu Ser Phe Phe Lys Arg Cys Gly
 100 105 110
 Asn Ile Cys His Ile Asp Leu Arg Tyr Cys Lys Gln Val Thr Lys Glu
 115 120 125
 Gly Cys Glu Gln Phe Ile Ala Glu Met Ser Val Ser Val Gln Phe Gly
 130 135 140
 Gln Val Glu Glu Lys Leu Leu Gln Lys Leu Ser
 145 150 155

<210> 1338

<211> 328

<212> PRT

<213> Homo sapiens

<400> 1338

Asn Asn Ser Gly Val Met Pro Glu Met Pro Glu Asp Met Glu Gln Glu
 1 5 10 15
 Glu Val Asn Ile Pro Asn Arg Arg Val Leu Val Thr Gly Ala Thr Gly
 20 25 30
 Leu Leu Gly Arg Ala Val His Lys Glu Phe Gln Gln Asn Asn Trp His
 35 40 45
 Ala Val Gly Cys Gly Phe Arg Arg Ala Arg Pro Lys Phe Glu Gln Val
 50 55 60
 Asn Leu Leu Asp Ser Asn Ala Val His His Ile Ile His Asp Phe Gln

1386

| 65 | | | | 70 | | | | 75 | | | | 80 | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | His | Val | Ile | Val | His | Cys | Ala | Ala | Glu | Arg | Arg | Pro | Asp | Val | Val |
| 85 | | | | | | | | 90 | | | | 95 | | | |
| Glu | Asn | Gln | Pro | Asp | Ala | Ala | Ser | Gln | Leu | Asn | Val | Asp | Ala | Ser | Gly |
| 100 | | | | | | | | 105 | | | | 110 | | | |
| Asn | Leu | Ala | Lys | Glu | Ala | Ala | Ala | Val | Gly | Ala | Phe | Leu | Ile | Tyr | Ile |
| 115 | | | | | | | | 120 | | | | 125 | | | |
| Ser | Ser | Asp | Tyr | Val | Phe | Asp | Gly | Thr | Asn | Pro | Pro | Tyr | Arg | Glu | Glu |
| 130 | | | | | | | | 135 | | | | 140 | | | |
| Asp | Ile | Pro | Ala | Pro | Leu | Asn | Leu | Tyr | Gly | Lys | Thr | Lys | Leu | Asp | Gly |
| 145 | | | | | | | | 150 | | | | 155 | | | |
| Glu | Lys | Ala | Val | Leu | Glu | Asn | Asn | Leu | Gly | Ala | Ala | Val | Leu | Arg | Ile |
| 165 | | | | | | | | 170 | | | | 175 | | | |
| Pro | Ile | Leu | Tyr | Gly | Glu | Val | Glu | Lys | Leu | Glu | Glu | Ser | Ala | Val | Thr |
| 180 | | | | | | | | 185 | | | | 190 | | | |
| Val | Met | Phe | Asp | Lys | Val | Gln | Phe | Ser | Asn | Lys | Ser | Ala | Asn | Met | Asp |
| 195 | | | | | | | | 200 | | | | 205 | | | |
| His | Trp | Gln | Gln | Arg | Phe | Pro | Thr | His | Val | Lys | Asp | Val | Ala | Thr | Val |
| 210 | | | | | | | | 215 | | | | 220 | | | |
| Cys | Arg | Gln | Leu | Ala | Glu | Lys | Arg | Met | Leu | Asp | Pro | Ser | Ile | Lys | Gly |
| 225 | | | | | | | | 230 | | | | 235 | | | |
| Thr | Phe | His | Trp | Ser | Gly | Asn | Glu | Gln | Met | Thr | Lys | Tyr | Glu | Met | Ala |
| 245 | | | | | | | | 250 | | | | 255 | | | |
| Cys | Ala | Ile | Ala | Asp | Ala | Phe | Asn | Leu | Pro | Ser | Ser | His | Leu | Arg | Pro |
| 260 | | | | | | | | 265 | | | | 270 | | | |
| Ile | Thr | Asp | Ser | Pro | Val | Leu | Gly | Ala | Gln | Arg | Pro | Arg | Asn | Ala | Gln |
| 275 | | | | | | | | 280 | | | | 285 | | | |
| Leu | Asp | Cys | Ser | Lys | Leu | Glu | Thr | Leu | Gly | Ile | Gly | Gln | Arg | Thr | Pro |
| 290 | | | | | | | | 295 | | | | 300 | | | |
| Phe | Arg | Ile | Gly | Ile | Lys | Glu | Ser | Leu | Trp | Pro | Phe | Leu | Ile | Asp | Lys |
| 305 | | | | | | | | 310 | | | | 315 | | | |
| Arg | Trp | Arg | Gln | Thr | Val | Phe | His | | | | | | | | |
| 325 | | | | | | | | | | | | | | | |

1387

<210> 1339

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1339

Leu Xaa His Pro Phe Ala Val Thr Ser Tyr Gly Lys Asn Leu Tyr Phe
 1 5 10 15

Thr Asp Trp Lys Met Asn Ser Val Val Ala Leu Asp Leu Ala Ile Ser
 20 25 30

Lys Glu Thr Asp Ala Phe Gln Pro His Lys Gln Thr Arg Leu Tyr Gly
 35 40 45

Ile Thr Thr Ala Leu Ser Gln Cys Pro Gln Ala Ile Thr Thr Ala Gln
 50 55 60

<210> 1340

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1340

Arg Lys Met Ala Val Glu Ser Arg Val Thr Gln Glu Glu Ile Lys Lys
 1 5 10 15

Glu Pro Glu Lys Pro Ile Asp Arg Glu Lys Thr Cys Pro Leu Leu Leu
 20 25 30

Arg Val Phe Thr Thr Asn Asn Gly Arg His His Arg Met Asp Glu Phe
 35 40 45

Ser Arg Gly Asn Val Pro Ser Ser Glu Leu Gln Ile Tyr Thr Trp Met
 50 55 60

Asp Ala Thr Leu Lys Glu Leu Thr Ser Leu Val Lys Glu Val Tyr Pro
 65 70 75 80

Glu Ala Arg Lys Lys Gly Thr His Phe Asn Phe Ala Ile Val Phe Thr

1388

| | | | | | |
|---|-----|--|-----|--|-----|
| | 85 | | 90 | | 95 |
| Asp Val Lys Arg Pro Gly Tyr Arg Val Lys Glu Ile Gly Ser Thr Met | | | | | |
| | 100 | | 105 | | 110 |
| Ser Gly Arg Lys Gly Thr Asp Asp Ser Met Thr Leu Gln Ser Gln Lys | | | | | |
| | 115 | | 120 | | 125 |
| Phe Gln Ile Gly Asp Tyr Leu Asp Ile Ala Ile Thr Pro Pro Asn Arg | | | | | |
| | 130 | | 135 | | 140 |
| Ala Pro Pro Pro Ser Gly Arg Met Arg Pro Tyr | | | | | |
| | 145 | | 150 | | 155 |

<210> 1341
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 1341

| | | | | | |
|---|----|---|----|----|----|
| Ala Gln Leu Pro Ser Ser Ser Phe Leu Arg His Arg Gly Val Phe Leu | | | | | |
| 1 | | 5 | | 10 | 15 |
| Thr Pro Leu Leu Ala Met Ser Ser His Lys Thr Phe Arg Ile Lys Arg | | | | | |
| | 20 | | 25 | | 30 |
| Phe Leu Ala Lys Lys Gln Lys Gln Asn Arg Pro Ile Pro Gln Trp Ile | | | | | |
| | 35 | | 40 | | 45 |
| Arg Met Lys Thr Gly Asn Lys Ile Arg Tyr Asn Ser Lys Arg Arg His | | | | | |
| | 50 | | 55 | | 60 |
| Trp Arg Arg Thr Lys Leu Gly Leu | | | | | |
| | 65 | | 70 | | |

<210> 1342
 <211> 270
 <212> PRT
 <213> Homo sapiens

<400> 1342

| | | | | | |
|---|----|---|----|----|----|
| Leu Lys Val Ala Gln Thr Asp Gly Val Asn Val Asp Met His Leu Lys | | | | | |
| 1 | | 5 | | 10 | 15 |
| Gln Ile Glu Ile Lys Lys Phe Lys Tyr Gly Ile Glu Glu His Gly Lys | | | | | |
| | 20 | | 25 | | 30 |

1389

Val Lys Met Arg Gly Gly Leu Leu Arg Thr Tyr Ile Ile Ser Ile Leu
 35 40 45
 Phe Lys Ser Ile Phe Glu Val Ala Phe Leu Leu Ile Gln Trp Tyr Ile
 50 55 60
 Tyr Gly Phe Ser Leu Ser Ala Val Tyr Thr Cys Lys Arg Asp Pro Cys
 65 70 75 80
 Pro His Gln Val Asp Cys Phe Leu Ser Arg Pro Thr Glu Lys Thr Ile
 85 90 95
 Phe Ile Ile Phe Met Leu Val Val Ser Leu Val Ser Leu Ala Leu Asn
 100 105 110
 Ile Ile Glu Leu Phe Tyr Val Phe Phe Lys Gly Val Lys Asp Arg Val
 115 120 125
 Lys Gly Lys Ser Asp Pro Tyr His Ala Thr Ser Gly Ala Leu Ser Pro
 130 135 140
 Ala Lys Asp Cys Gly Ser Gln Lys Tyr Ala Tyr Phe Asn Gly Cys Ser
 145 150 155 160
 Ser Pro Thr Ala Pro Leu Ser Pro Met Ser Pro Pro Gly Tyr Lys Leu
 165 170 175
 Val Thr Gly Asp Arg Asn Asn Ser Ser Cys Arg Asn Tyr Asn Lys Gln
 180 185 190
 Ala Ser Glu Gln Asn Trp Ala Asn Tyr Ser Ala Glu Gln Asn Arg Met
 195 200 205
 Gly Gln Ala Gly Ser Thr Ile Ser Asn Ser His Ala Gln Pro Phe Asp
 210 215 220
 Phe Pro Asp Asp Asn Gln Asn Ser Lys Lys Leu Ala Ala Gly His Glu
 225 230 235 240
 Leu Gln Pro Leu Ala Ile Val Asp Gln Arg Pro Ser Ser Arg Ala Ser
 245 250 255
 Ser Arg Ala Ser Ser Arg Pro Arg Pro Asp Asp Leu Glu Ile
 260 265 270

<210> 1343

<211> 94

<212> PRT

<213> Homo sapiens

1390

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1343

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser
1 5 10 15

Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg
20 25 30

Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln
35 40 45

Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser
50 55 60

Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu
65 70 75 80

Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu
85 90

<210> 1344

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1344

Tyr Ser Thr Arg Ala Leu Trp Lys Pro Asn His Val His Val Cys Val
1 5 10 15

1391

Cys Val Cys Ala Ser Phe Glu Pro Pro Ser Thr Ala Ala Ser Ser His
 20 25 30
 Asp Thr Lys Leu Leu Ile Ser Thr Phe Leu Trp Val Ala Gln Gly Leu
 35 40 45
 Ile Ala Ser His Ser Ile Thr Arg Ile Glu Ala Arg His Gly Gly Ala
 50 55 60
 Cys Leu Val Val Pro Ala Lys Leu Gly Arg Leu Glu Gly Arg Glu Gly
 65 70 75 80
 Ser Leu Trp Ser Pro Gly Arg Leu Glu Gly Trp Gln Trp Ser His Gly
 85 90 95
 Ser Gly Gly His Trp His Phe Gln Pro Gly Gly Gly Arg Val Glu Thr
 100 105 110
 Phe Val Leu Gln Lys Xaa Lys Lys Lys Xaa Xaa Gly Gly
 115 120 125

<210> 1345

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1345

Pro Arg Val Arg Arg Leu Arg Glu Asp Asp Arg Arg Gly Phe Leu Ser
 1 5 10 15
 Phe Arg Ala Asp Ser Ala His Ala Ser Met Val Asn Val Pro Lys Thr
 20 25 30
 Arg Arg Thr Phe Cys Lys Lys Cys Gly Lys His Gln Pro His Lys Val
 35 40 45
 Thr Gln Tyr Lys Lys Gly Lys Asp Ser Leu Tyr Ala Gln Gly Lys Arg
 50 55 60
 Arg Tyr Asp Arg Lys Gln Ser Gly Tyr Gly Gly Gln Thr Lys Pro Ile
 65 70 75 80
 Phe Arg Lys Lys Ala Lys Thr Thr Lys Lys Ile Val Leu Arg Leu Glu
 85 90 95
 Cys Val Glu Pro Asn Cys Arg Ser Lys Arg Met Leu Ala Ile Lys Arg
 100 105 110
 Cys Lys His Phe Glu Leu Gly Gly Asp Lys Lys Arg Lys Gly Gln Val

1392

115

120

125

Ile Gln Phe
130

<210> 1346

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1346

Asn Lys Arg Asn Cys Lys Phe Pro Leu Leu Lys Ile Thr Lys Ile Thr
1 5 10 15

Glu Thr Lys Glu Glu Ile Arg Ile Trp Gly Ile Val Leu Asn Asn Leu
20 25 30

Val Val Lys Lys Asn Asn Cys Ala Cys Leu Asp Leu Asn Lys Pro Pro
35 40 45

Ser Lys Cys Glu Gly Ser Ser Asn Phe Ser Lys His Met Lys Val Leu
50 55 60

Ile His Phe Asp Lys Gly Pro Leu Lys Lys Ser
65 70 75

<210> 1347

<211> 413

<212> PRT

<213> Homo sapiens

<400> 1347

Gly Val Ala Arg Ala Gln Pro Val Pro Ala Val Leu Ser Trp Leu Leu
1 5 10 15

Ala Leu Leu Arg Cys Ala Ala Thr Met Leu Ser Leu Arg Val Pro Leu
20 25 30

Ala Pro Ile Thr Asp Pro Gln Gln Leu Gln Leu Ser Pro Leu Lys Gly
35 40 45

Leu Ser Leu Val Asp Lys Glu Asn Thr Pro Pro Ala Leu Ser Gly Thr
50 55 60

Arg Val Leu Ala Ser Lys Thr Ala Arg Arg Ile Phe Gln Glu Pro Thr
65 70 75 80

1393

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Lys | Thr | Lys | Ala | Ala | Ala | Pro | Gly | Val | Glu | Asp | Glu | Pro | Leu | 85 | 90 | 95 | |
| Leu | Arg | Glu | Asn | Pro | Arg | Arg | Phe | Val | Ile | Phe | Pro | Ile | Glu | Tyr | His | 100 | 105 | 110 | |
| Asp | Ile | Trp | Gln | Met | Tyr | Lys | Lys | Ala | Glu | Ala | Ser | Phe | Trp | Thr | Ala | 115 | 120 | 125 | |
| Glu | Glu | Val | Asp | Leu | Ser | Lys | Asp | Ile | Gln | His | Trp | Glu | Ser | Leu | Lys | 130 | 135 | 140 | |
| Pro | Glu | Glu | Arg | Tyr | Phe | Ile | Ser | His | Val | Leu | Ala | Phe | Phe | Ala | Ala | 145 | 150 | 155 | 160 |
| Ser | Asp | Gly | Ile | Val | Asn | Glu | Asn | Leu | Val | Glu | Arg | Phe | Ser | Gln | Glu | 165 | 170 | 175 | |
| Val | Gln | Ile | Thr | Glu | Ala | Arg | Cys | Phe | Tyr | Gly | Phe | Gln | Ile | Ala | Met | 180 | 185 | 190 | |
| Glu | Asn | Ile | His | Ser | Glu | Met | Tyr | Ser | Leu | Leu | Ile | Asp | Thr | Tyr | Ile | 195 | 200 | 205 | |
| Lys | Asp | Pro | Lys | Glu | Arg | Glu | Phe | Leu | Phe | Asn | Ala | Ile | Glu | Thr | Met | 210 | 215 | 220 | |
| Pro | Cys | Val | Lys | Lys | Lys | Ala | Asp | Trp | Ala | Leu | Arg | Trp | Ile | Gly | Asp | 225 | 230 | 235 | 240 |
| Lys | Glu | Ala | Thr | Tyr | Gly | Glu | Arg | Val | Val | Ala | Phe | Ala | Ala | Val | Glu | 245 | 250 | 255 | |
| Gly | Ile | Phe | Phe | Ser | Gly | Ser | Phe | Ala | Ser | Ile | Phe | Trp | Leu | Lys | Lys | 260 | 265 | 270 | |
| Arg | Gly | Leu | Met | Pro | Gly | Leu | Thr | Phe | Ser | Asn | Glu | Leu | Ile | Ser | Arg | 275 | 280 | 285 | |
| Asp | Glu | Gly | Leu | His | Cys | Asp | Phe | Ala | Cys | Leu | Met | Phe | Lys | His | Leu | 290 | 295 | 300 | |
| Val | His | Lys | Pro | Ser | Glu | Glu | Arg | Val | Arg | Glu | Ile | Ile | Ile | Asn | Ala | 305 | 310 | 315 | 320 |
| Val | Arg | Ile | Glu | Gln | Glu | Phe | Leu | Thr | Glu | Ala | Leu | Pro | Val | Lys | Leu | 325 | 330 | 335 | |
| Ile | Gly | Met | Asn | Cys | Thr | Leu | Met | Lys | Gln | Tyr | Ile | Glu | Phe | Val | Ala | 340 | 345 | 350 | |

1394

Asp Arg Leu Met Leu Glu Leu Gly Phe Ser Lys Val Phe Arg Val Glu
 355 360 365

Asn Pro Phe Asp Phe Met Glu Asn Ile Ser Leu Glu Gly Lys Thr Asn
 370 375 380

Phe Phe Glu Lys Arg Val Gly Glu Tyr Gln Arg Met Gly Val Met Ser
 385 390 395 400

Ser Pro Thr Glu Asn Ser Phe Thr Leu Asp Ala Asp Phe
 405 410

<210> 1348

<211> 243

<212> PRT

<213> Homo sapiens

<400> 1348

Thr Gly Asn Lys Met Gln Asp Pro Asn Ala Asp Thr Glu Trp Asn Asp
 1 5 10 15

Ile Leu Arg Lys Lys Gly Ile Leu Pro Pro Lys Glu Ser Leu Lys Glu
 20 25 30

Leu Glu Glu Glu Ala Glu Glu Glu Gln Arg Ile Leu Gln Gln Ser Val
 35 40 45

Val Lys Thr Tyr Glu Asp Met Thr Leu Glu Glu Leu Glu Asp His Glu
 50 55 60

Asp Glu Phe Asn Glu Glu Asp Glu Arg Ala Ile Glu Met Tyr Arg Arg
 65 70 75 80

Arg Arg Leu Ala Glu Trp Lys Ala Thr Lys Leu Lys Asn Lys Phe Gly
 85 90 95

Glu Val Leu Glu Ile Ser Gly Lys Asp Tyr Val Gln Glu Val Thr Lys
 100 105 110

Ala Gly Glu Gly Leu Trp Val Ile Leu His Leu Tyr Lys Gln Gly Ile
 115 120 125

Pro Leu Cys Ala Leu Ile Asn Gln His Leu Ser Gly Leu Ala Arg Lys
 130 135 140

Phe Pro Asp Val Lys Phe Ile Lys Ala Ile Ser Thr Thr Cys Ile Pro
 145 150 155 160

Asn Tyr Pro Asp Arg Asn Leu Pro Thr Ile Phe Val Tyr Leu Glu Gly

1395

165 170 175
 Asp Ile Lys Ala Gln Phe Ile Gly Pro Leu Val Phe Gly Gly Met Asn
 180 185 190
 Leu Thr Arg Asp Glu Leu Glu Trp Lys Leu Ser Glu Ser Gly Ala Ile
 195 200 205
 Met Thr Asp Leu Glu Glu Asn Pro Lys Lys Pro Ile Glu Asp Val Leu
 210 215 220
 Leu Ser Ser Val Arg Arg Ser Val Leu Met Lys Arg Asp Ser Asp Ser
 225 230 235 240
 Glu Gly Asp

<210> 1349
 <211> 326
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (137)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (142)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1349
 Arg Met Ala Thr Pro Leu Pro Pro Pro Ser Pro Arg His Leu Arg Leu
 1 5 10 15
 Leu Arg Leu Leu Leu Ser Gly Leu Val Leu Gly Ala Ala Leu Arg Gly
 20 25 30
 Ala Ala Ala Gly His Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp
 35 40 45
 Cys Ala Leu Lys Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys
 50 55 60
 Gly Pro Cys Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val
 65 70 75 80
 Pro Arg Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu

1396

| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Glu | Asp | Glu | Ile | Asp | Phe | Leu | Ala | Gln | Glu | Leu | Ala | Arg | Lys | Glu | Ser | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Gly | His | Ser | Thr | Pro | Pro | Leu | Pro | Lys | Asp | Arg | Gln | Arg | Leu | Pro | Glu | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Pro | Ala | Thr | Leu | Gly | Phe | Ser | Ala | Xaa | Gly | Gln | Gly | Leu | Xaa | Leu | Gly | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Leu | Pro | Ser | Thr | Pro | Gly | Thr | Pro | Thr | Pro | Thr | Pro | His | Thr | Ser | Leu | | | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | | | |
| Gly | Ser | Pro | Val | Ser | Ser | Asp | Pro | Val | His | Met | Ser | Pro | Leu | Glu | Pro | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | |
| Arg | Gly | Gly | Gln | Gly | Asp | Gly | Leu | Ala | Leu | Val | Leu | Ile | Leu | Ala | Phe | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | |
| Cys | Val | Ala | Gly | Ala | Ala | Ala | Leu | Ser | Val | Ala | Ser | Leu | Cys | Trp | Cys | | | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | | | |
| Arg | Leu | Gln | Arg | Glu | Ile | Arg | Leu | Thr | Gln | Lys | Ala | Asp | Tyr | Ala | Thr | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | |
| Ala | Lys | Ala | Pro | Gly | Ser | Pro | Ala | Ala | Pro | Arg | Ile | Ser | Pro | Gly | Asp | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | | |
| Gln | Arg | Leu | Ala | Gln | Ser | Ala | Glu | Met | Tyr | His | Tyr | Gln | His | Gln | Arg | | | | |
| | | | 245 | | | | | 250 | | | | | 255 | | | | | | |
| Gln | Gln | Met | Leu | Cys | Leu | Glu | Arg | His | Lys | Glu | Pro | Pro | Lys | Glu | Leu | | | | |
| | | 260 | | | | | 265 | | | | | | 270 | | | | | | |
| Asp | Thr | Ala | Ser | Ser | Asp | Glu | Glu | Asn | Glu | Asp | Gly | Asp | Phe | Thr | Val | | | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | | | |
| Tyr | Glu | Cys | Pro | Gly | Leu | Ala | Pro | Thr | Gly | Glu | Met | Glu | Val | Arg | Asn | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | |
| Pro | Leu | Phe | Asp | His | Ala | Ala | Leu | Ser | Ala | Pro | Leu | Pro | Ala | Pro | Ser | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | |
| Ser | Pro | Pro | Ala | Leu | Pro | | | | | | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | | | | | |

<210> 1350

<211> 62

1397

<212> PRT

<213> Homo sapiens

<400> 1350

Val Lys Ser Asp Thr Pro Pro Cys Val Ser Lys Asn Leu Val Pro Pro
 1 5 10 15

Leu His Thr Ser Leu Thr Leu Asn Ile Phe His Trp Ile Leu Asp Arg
 20 25 30

Ala Lys Gly Arg Thr Gly Ala Ser Gly Gly Pro Trp Leu Phe Lys Ser
 35 40 45

Trp Ile Ile Cys Asp Ser Asn His Lys Phe Leu Ala Asn Phe
 50 55 60

<210> 1351

<211> 312

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1351

Glu Pro Arg Pro Gly Cys Gly Asn Lys Met Ala Gly Lys Lys Asn Val
 1 5 10 15

Leu Ser Ser Leu Ala Val Tyr Ala Glu Asp Ser Glu Pro Glu Ser Asp
 20 25 30

Gly Glu Ala Gly Ile Glu Ala Val Gly Ser Ala Ala Glu Glu Lys Gly
 35 40 45

Gly Leu Val Ser Asp Ala Tyr Gly Glu Asp Asp Phe Ser Arg Leu Gly
 50 55 60

Gly Asp Glu Asp Gly Tyr Glu Glu Glu Glu Asp Glu Asn Ser Arg Gln
 65 70 75 80

Ser Glu Asp Asp Asp Ser Glu Thr Glu Lys Pro Glu Ala Asp Asp Pro
 85 90 95

Lys Asp Asn Thr Glu Ala Glu Lys Arg Asp Pro Gln Glu Leu Val Ala
 100 105 110

Ser Phe Ser Glu Arg Val Arg Asn Met Ser Pro Asp Glu Ile Lys Ile

1398

| 115 | | | | 120 | | | | 125 | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Glu | Pro | Pro | Gly | Arg | Cys | Ser | Asn | His | Leu | Gln | Asp | Lys | Ile |
| 130 | | | | 135 | | | | 140 | | | | | | | |
| Gln | Lys | Leu | Tyr | Glu | Arg | Lys | Ile | Lys | Glu | Gly | Met | Asp | Met | Asn | Tyr |
| 145 | | | | 150 | | | | 155 | | | | 160 | | | |
| Ile | Ile | Gln | Arg | Lys | Lys | Glu | Phe | Arg | Asn | Pro | Ser | Ile | Tyr | Glu | Lys |
| | | | | 165 | | | | 170 | | | | 175 | | | |
| Leu | Ile | Gln | Phe | Cys | Ala | Ile | Asp | Glu | Leu | Gly | Thr | Asn | Tyr | Pro | Lys |
| | | | | 180 | | | | 185 | | | | 190 | | | |
| Asp | Met | Phe | Asp | Pro | His | Gly | Trp | Ser | Glu | Asp | Ser | Tyr | Tyr | Glu | Ala |
| 195 | | | | | | | | 200 | | | | 205 | | | |
| Leu | Ala | Lys | Ala | Gln | Lys | Ile | Glu | Met | Asp | Lys | Leu | Glu | Lys | Ala | Lys |
| 210 | | | | | | | | 215 | | | | 220 | | | |
| Lys | Glu | Arg | Thr | Lys | Ile | Glu | Phe | Val | Thr | Gly | Thr | Lys | Lys | Gly | Thr |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Thr | Thr | Asn | Ala | Thr | Ser | Thr | Thr | Thr | Thr | Thr | Ala | Ser | Thr | Ala | Val |
| | | | | 245 | | | | 250 | | | | 255 | | | |
| Ala | Asp | Ala | Gln | Lys | Arg | Lys | Ser | Lys | Trp | Asp | Ser | Ala | Ile | Pro | Val |
| | | | | 260 | | | | 265 | | | | 270 | | | |
| Thr | Thr | Ile | Ser | Pro | Ala | His | His | Pro | His | His | His | Ser | His | Pro | Ala |
| 275 | | | | | | | | 280 | | | | 285 | | | |
| Ser | Cys | Cys | His | Gly | His | His | Gln | Arg | Gln | Xaa | Ser | Lys | Asp | His | Arg |
| 290 | | | | | | | | 295 | | | | 300 | | | |
| His | Leu | Cys | Cys | Gly | Ala | Pro | Leu | | | | | | | | |
| 305 | | | | 310 | | | | | | | | | | | |

<210> 1352

<211> 259

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1352

1399

Leu Leu Asp Ser Leu Lys Xaa Asp Tyr Ala Gly Lys Pro Gln Pro Pro
 1 5 10 15
 Ile Lys Ser Glu Arg Arg Asn Pro Pro Ser Tyr Ala Met Ala Gly Lys
 20 25 30
 Lys Val Leu Ile Val Tyr Ala His Gln Glu Pro Lys Ser Phe Asn Gly
 35 40 45
 Ser Leu Lys Asn Val Ala Val Asp Glu Leu Ser Arg Gln Gly Cys Thr
 50 55 60
 Val Thr Val Ser Asp Leu Tyr Ala Met Asn Phe Glu Pro Arg Ala Thr
 65 70 75 80
 Asp Lys Asp Ile Thr Gly Thr Leu Ser Asn Pro Glu Val Phe Asn Tyr
 85 90 95
 Gly Val Glu Thr His Glu Ala Tyr Lys Gln Arg Ser Leu Ala Ser Asp
 100 105 110
 Ile Thr Asp Glu Gln Lys Lys Val Arg Glu Ala Asp Leu Val Ile Phe
 115 120 125
 Gln Phe Pro Leu Tyr Trp Phe Ser Val Pro Ala Ile Leu Lys Gly Trp
 130 135 140
 Met Asp Arg Val Leu Cys Gln Gly Phe Ala Phe Asp Ile Pro Gly Phe
 145 150 155 160
 Tyr Asp Ser Gly Leu Leu Gln Gly Lys Leu Ala Leu Leu Ser Val Thr
 165 170 175
 Thr Gly Gly Thr Ala Glu Met Tyr Thr Lys Thr Gly Val Asn Gly Asp
 180 185 190
 Ser Arg Tyr Phe Leu Trp Pro Leu Gln His Gly Thr Leu His Phe Cys
 195 200 205
 Gly Phe Lys Val Leu Ala Pro Gln Ile Ser Phe Ala Pro Glu Ile Ala
 210 215 220
 Ser Glu Glu Glu Arg Lys Gly Met Val Ala Ala Trp Ser Gln Arg Leu
 225 230 235 240
 Gln Thr Ile Trp Lys Glu Glu Pro Ile Pro Cys Thr Ala His Trp His
 245 250 255
 Phe Gly Gln

1400

<210> 1353
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 1353
 Asp Leu Ala Ser Glu Glu His Phe Phe Ser Val Lys Phe Leu Tyr Leu
 1 5 10 15
 Lys Ile Gln Lys Tyr Phe Arg Ile Leu Leu Ile Leu Ser Pro Val Phe
 20 25 30
 Thr Ser Phe Trp Lys Thr Cys Ile Thr Met Ser Leu Glu Lys Gly Gln
 35 40 45
 Arg Lys Ala Phe His Val Lys Ile Arg Ser Leu Ala Ile Ser Asn Pro
 50 55 60
 Val Leu Phe Ser Leu His Phe Phe
 65 70

<210> 1354
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 1354
 Lys Arg Arg Arg Arg Leu Glu Gln Arg Gln Gln Pro Asp Glu Gln Arg
 1 5 10 15
 Arg Arg Ser Gly Ala Met Val Lys Met Ala Ala Ala Gly Gly Gly Gly
 20 25 30
 Gly Gly Gly Arg Tyr Tyr Gly Gly Gly Ser Glu Gly Gly Arg Ala Pro
 35 40 45
 Lys Arg Leu Lys Thr Asp Asn Ala Gly Asp Gln His Gly Gly Gly Gly
 50 55 60
 Gly Gly Gly Gly Gly Ala Gly Ala Ala Gly Gly Gly Gly Gly Glu
 65 70 75 80
 Asn Tyr Asp Asp Pro His Lys Thr Pro Ala Ser Pro Val Val His Ile
 85 90 95
 Arg Gly Leu Ile Asp Gly Val Val Glu Ala Asp Leu Val Glu Ala Leu
 100 105 110

1401

Gln Glu Phe Gly Pro Ile Ser Tyr Val Val Val Met Pro Lys Lys Arg
 115 120 125

Gln Ala Leu Val Glu Phe Glu Asp Val Leu Gly Ala Cys Asn Ala Val
 130 135 140

Asn Tyr Ala Ala Asp Asn Gln Ile Tyr Ile Ala Gly His Pro Ala Phe
 145 150 155 160

Val Asn Tyr Ser Thr Ser Gln Lys Ile Ser Arg Pro Gly Asp Ser Asp
 165 170 175

Asp Ser Arg Ser Val Asn Ser Val Leu Leu Phe Thr Ile Leu Asn Pro
 180 185 190

Ile Tyr Ser Ile Thr Thr Asp Val Leu Tyr Thr Ile Cys Asn Pro Cys
 195 200 205

Gly Pro Val Gln Arg Ile Val Ile Phe Arg Lys Asn Gly Val Gln Ala
 210 215 220

Met Val Glu Phe Asp Ser Val Gln Ser Ala Gln Arg Ala Lys Ala Ser
 225 230 235 240

Leu Asn Gly Ala Asp Ile Tyr Ser Gly Cys Cys Thr Leu Lys Ile Glu
 245 250 255

Tyr Ala Lys Pro Thr Arg Leu Asn Val Phe Lys Asn Asp Gln Asp Thr
 260 265 270

Trp Asp Tyr Thr Asn Pro Asn Leu Ser Gly Gln Gly Asn Leu Asp Asp
 275 280 285

His Phe Val Leu Asn Ile Pro Ala Leu Leu Ser Leu Asp
 290 295 300

<210> 1355

<211> 466

<212> PRT

<213> Homo sapiens

<400> 1355

Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys
 1 5 10 15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His
 20 25 30

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr
 35 40 45
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr
 50 55 60
 Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu
 65 70 75 80
 Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg
 85 90 95
 Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln
 100 105 110
 Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Ser Ala Ala Ser Thr
 115 120 125
 Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro
 130 135 140
 Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro
 145 150 155 160
 Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly
 165 170 175
 Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg
 180 185 190
 Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly
 195 200 205
 Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met
 210 215 220
 Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met
 225 230 235 240
 Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro
 245 250 255
 Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro
 260 265 270
 Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val
 275 280 285
 Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu
 290 295 300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr
 305 310 315 320
 Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr
 325 330 335
 Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile
 340 345 350
 His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro
 355 360 365
 Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn
 370 375 380
 Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile
 385 390 395 400
 Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr
 405 410 415
 Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro
 420 425 430
 Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro
 435 440 445
 Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly
 450 455 460
 Arg Tyr
 465

<210> 1356

<211> 85

<212> PRT

<213> Homo sapiens

<400> 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu
 1 5 10 15
 Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr
 20 25 30
 Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly
 35 40 45
 Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50 55 60
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu
 65 70 75 80
 Pro Phe Leu Phe Leu
 85

<210> 1357

<211> 580

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (526)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1357

Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu
 1 5 10 15
 Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met
 20 25 30
 Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys
 35 40 45
 Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln
 50 55 60
 Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys
 65 70 75 80
 Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly
 85 90 95
 Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys
 100 105 110
 Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val
 115 120 125
 Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

1405

| | | | | |
|---|--|-----|--|-----|
| 130 | | 135 | | 140 |
| Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser | | | | |
| 145 | | 150 | | 155 |
| | | | | 160 |
| Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val | | | | |
| | | 165 | | 170 |
| | | | | 175 |
| Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser | | | | |
| | | 180 | | 185 |
| | | | | 190 |
| Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr | | | | |
| | | 195 | | 200 |
| | | | | 205 |
| His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe | | | | |
| | | 210 | | 215 |
| | | | | 220 |
| Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu | | | | |
| | | 225 | | 230 |
| | | | | 235 |
| | | | | 240 |
| Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala | | | | |
| | | 245 | | 250 |
| | | | | 255 |
| Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu | | | | |
| | | 260 | | 265 |
| | | | | 270 |
| Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln | | | | |
| | | 275 | | 280 |
| | | | | 285 |
| His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys | | | | |
| | | 290 | | 295 |
| | | | | 300 |
| Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile | | | | |
| | | 305 | | 310 |
| | | | | 315 |
| | | | | 320 |
| His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe | | | | |
| | | 325 | | 330 |
| | | | | 335 |
| Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys | | | | |
| | | 340 | | 345 |
| | | | | 350 |
| Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser | | | | |
| | | 355 | | 360 |
| | | | | 365 |
| Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys | | | | |
| | | 370 | | 375 |
| | | | | 380 |
| Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys | | | | |
| | | 385 | | 390 |
| | | | | 395 |
| | | | | 400 |
| His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys | | | | |

1406

405 410 415
Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr
420 425 430
His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe
435 440 445
Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu
450 455 460
Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser
465 470 475 480
Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr
485 490 495
Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu
500 505 510
His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys
515 520 525
Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr
530 535 540
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe
545 550 555 560
Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu
565 570 575
Arg Leu Ser Ala
580

<210> 1358

<211> 612

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (445)

<223> Xaa equals any of the naturally occurring L-amino acids

1407

<400> 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly
 1 5 10 15
 Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser
 20 25 30
 Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn
 35 40 45
 Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro
 50 55 60
 Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys
 65 70 75 80
 Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly
 85 90 95
 Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu
 100 105 110
 Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met
 115 120 125
 Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser
 130 135 140
 Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp
 145 150 155 160
 Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser
 165 170 175
 Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr
 180 185 190
 Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys
 195 200 205
 Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp
 210 215 220
 Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn
 225 230 235 240
 Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp
 245 250 255
 Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1408

| | | |
|---|-----|---------|
| 260 | 265 | 270 |
| Trp Gln Ala Val Asp Ser Thr Pro Gln Glu Asn Ser Asp Gly Met Tyr | | |
| 275 | 280 | 285 |
| Arg Cys Gly Pro Ala Ser Val Gln Ala Ile Lys His Gly His Val Cys | | |
| 290 | 295 | 300 |
| Phe Gln Phe Asp Ala Pro Phe Val Phe Ala Glu Val Asn Ser Asp Leu | | |
| 305 | 310 | 315 320 |
| Ile Tyr Ile Thr Ala Lys Lys Asp Gly Thr His Val Val Glu Asn Val | | |
| 325 | 330 | 335 |
| Asp Ala Thr His Ile Gly Lys Leu Ile Val Thr Lys Gln Ile Gly Gly | | |
| 340 | 345 | 350 |
| Asp Gly Met Met Asp Ile Thr Asp Thr Tyr Lys Phe Gln Glu Gly Gln | | |
| 355 | 360 | 365 |
| Glu Glu Glu Arg Leu Ala Leu Glu Thr Ala Leu Met Tyr Gly Ala Lys | | |
| 370 | 375 | 380 |
| Lys Pro Leu Asn Thr Glu Gly Val Met Lys Ser Arg Ser Asn Val Asp | | |
| 385 | 390 | 395 400 |
| Met Asp Phe Glu Val Glu Asn Ala Val Leu Gly Lys Asp Phe Lys Leu | | |
| 405 | 410 | 415 |
| Ser Ile Thr Phe Arg Asn Asn Ser His Asn Arg Tyr Thr Ile Thr Ala | | |
| 420 | 425 | 430 |
| Tyr Leu Ser Ala Asn Ile Thr Phe Tyr Thr Gly Val Xaa Lys Ala Glu | | |
| 435 | 440 | 445 |
| Phe Lys Lys Glu Thr Phe Asp Val Thr Leu Glu Pro Leu Ser Phe Lys | | |
| 450 | 455 | 460 |
| Lys Glu Ala Val Leu Ile Gln Ala Gly Glu Tyr Met Gly Gln Leu Leu | | |
| 465 | 470 | 475 480 |
| Glu Gln Ala Ser Leu His Phe Phe Val Thr Ala Arg Ile Asn Glu Thr | | |
| 485 | 490 | 495 |
| Arg Asp Val Leu Ala Lys Gln Lys Ser Thr Val Leu Thr Ile Pro Glu | | |
| 500 | 505 | 510 |
| Ile Ile Ile Lys Val Arg Gly Thr Gln Val Val Gly Ser Asp Met Thr | | |
| 515 | 520 | 525 |
| Val Thr Val Glu Phe Thr Asn Pro Leu Lys Glu Thr Leu Arg Asn Val | | |

1409

530 535 540
 Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met
 545 550 555 560
 Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys
 565 570 575
 Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser
 580 585 590
 Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg
 595 600 605
 Arg Pro Ser Met
 610

<210> 1359
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 1359
 Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln
 1 5 10 15
 Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala
 20 25 30
 Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser
 35 40 45
 His Ser Thr Glu Leu Gln Val Ile
 50 55

<210> 1360
 <211> 415
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (368)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE

<222> (374)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (379)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (384)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (385)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (386)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (389)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (397)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (404)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (405)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (409)

1411

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1360

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Gly | Gly | Glu | Lys | Met | Ala | Asp | Asp | Pro | Ser | Ala | Ala | Asp | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Glu | Ile | Trp | Lys | Ile | Lys | Lys | Leu | Ile | Lys | Ser | Leu | Glu | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Gly | Asn | Gly | Thr | Ser | Met | Ile | Ser | Leu | Ile | Ile | Pro | Pro | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gln | Ile | Ser | Arg | Val | Ala | Lys | Met | Leu | Ala | Asp | Glu | Phe | Gly | Thr |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Asn | Ile | Lys | Ser | Arg | Val | Asn | Arg | Leu | Ser | Val | Leu | Gly | Ala |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Ser | Val | Gln | Gln | Arg | Leu | Lys | Leu | Tyr | Asn | Lys | Val | Pro | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Leu | Val | Val | Tyr | Cys | Gly | Thr | Ile | Val | Thr | Glu | Glu | Gly | Lys |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Lys | Val | Asn | Ile | Asp | Phe | Glu | Pro | Phe | Lys | Pro | Ile | Asn | Thr |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Tyr | Leu | Cys | Asp | Asn | Lys | Phe | His | Thr | Glu | Ala | Leu | Thr | Ala |
| | 130 | | | | | | 135 | | | | | 140 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ser | Asp | Asp | Ser | Lys | Phe | Gly | Phe | Ile | Val | Ile | Asp | Gly | Ser |
| 145 | | | | | | 150 | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Leu | Phe | Gly | Thr | Leu | Gln | Gly | Asn | Thr | Arg | Glu | Val | Leu | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Thr | Val | Asp | Leu | Pro | Lys | Lys | His | Gly | Arg | Gly | Gly | Gln | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Arg | Phe | Ala | Arg | Leu | Arg | Met | Glu | Lys | Arg | His | Asn | Tyr | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Val | Ala | Glu | Thr | Ala | Val | Gln | Leu | Phe | Ile | Ser | Gly | Asp | Lys |
| | 210 | | | | | | 215 | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Val | Ala | Gly | Leu | Val | Leu | Ala | Gly | Ser | Ala | Asp | Phe | Lys | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Ser | Gln | Ser | Asp | Met | Phe | Asp | Gln | Arg | Leu | Gln | Ser | Lys | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln
260 265 270

Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln
275 280 285

Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr
290 295 300

Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met
305 310 315 320

Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg
325 330 335

Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu
340 345 350

Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa
355 360 365

Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa
370 375 380

Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro
385 390 395 400

Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly
405 410 415

<210> 1361

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp
1 5 10 15

Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro
20 25 30

Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr
35 40 45

Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys
50 55 60

Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

1413

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Trp | Leu | Lys | Pro | Glu | Leu | Phe | Arg | Ile | Gly | Ala | Ser | Thr | Leu | Leu | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ile | Glu | Arg | Gln | Ile | Tyr | His | His | Val | Thr | Gly | Arg | Tyr | Ala | Ala |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Tyr | His | Asp | Leu | Pro | Met | Ser | | | | | | | | | |
| | | | | 115 | | | | | | | | | | | |

<210> 1362

<211> 282

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1362

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Val | Gly | Gly | Arg | Val | Gly | Gly | Arg | Val | Gly | Phe | Thr | Ala | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Trp | Asp | Ala | Val | Ser | Gly | Asp | Glu | Leu | Met | Thr | Leu | Ala | His | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Xaa | Xaa | Lys | Thr | Val | Asp | Phe | Thr | Gln | Asp | Ser | Asn | Tyr | Leu | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Gly | Gln | Asp | Lys | Leu | Leu | Arg | Ile | Tyr | Asp | Leu | Asn | Lys | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Glu | Pro | Lys | Glu | Ile | Ser | Gly | His | Thr | Ser | Gly | Ile | Lys | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Trp | Cys | Ser | Glu | Asp | Lys | Gln | Ile | Leu | Ser | Ala | Asp | Asp | Lys |
| | | | | 85 | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Arg | Leu | Trp | Asp | His | Ala | Thr | Met | Thr | Glu | Val | Lys | Ser | Leu |
| | | | 100 | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Phe | Asn | Met | Ser | Val | Ser | Ser | Met | Glu | Tyr | Ile | Pro | Glu | Gly | Glu |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1414

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val | | |
| 130 | 135 | 140 |
| Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser | | |
| 145 | 150 | 155 |
| Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp | | |
| 165 | 170 | 175 |
| Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser | | |
| 180 | 185 | 190 |
| Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp | | |
| 195 | 200 | 205 |
| Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp | | |
| 210 | 215 | 220 |
| Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro | | |
| 225 | 230 | 235 |
| Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu | | |
| 245 | 250 | 255 |
| Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys | | |
| 260 | 265 | 270 |
| Ile Phe Pro Ser Ala Pro Asp Val Lys Ala | | |
| 275 | 280 | |

<210> 1363

<211> 334

<212> PRT

<213> Homo sapiens

<400> 1363

| | | |
|---|----|----|
| Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro | | |
| 1 | 5 | 10 |
| Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly | | |
| 20 | 25 | 30 |
| Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Gly Arg Gly | | |
| 35 | 40 | 45 |
| Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly | | |
| 50 | 55 | 60 |

1415

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Gly | Gly | Gly | Gly | Gly | Gly | Gly | Gly | Arg | Gly | Gly | Gly | Gly | Phe | His | Ser | Gly | 65 | 70 | 75 | 80 |
| Gly | Asn | Arg | Gly | Arg | Gly | Arg | Gly | Gly | Lys | Arg | Gly | Asn | Gln | Ser | Gly | 85 | 90 | 95 | | |
| Lys | Asn | Val | Met | Val | Glu | Pro | His | Arg | His | Glu | Gly | Val | Phe | Ile | Cys | 100 | 105 | 110 | | |
| Arg | Gly | Lys | Glu | Asp | Ala | Leu | Val | Thr | Lys | Asn | Leu | Val | Pro | Gly | Glu | 115 | 120 | 125 | | |
| Ser | Val | Tyr | Gly | Glu | Lys | Arg | Val | Ser | Ile | Ser | Glu | Gly | Asp | Asp | Lys | 130 | 135 | 140 | | |
| Ile | Glu | Tyr | Arg | Ala | Trp | Asn | Pro | Phe | Arg | Ser | Lys | Leu | Ala | Ala | Ala | 145 | 150 | 155 | 160 | |
| Ile | Leu | Gly | Gly | Val | Asp | Gln | Ile | His | Ile | Lys | Pro | Gly | Ala | Lys | Val | 165 | 170 | 175 | | |
| Leu | Tyr | Leu | Gly | Ala | Ala | Ser | Gly | Thr | Thr | Val | Ser | His | Val | Ser | Asp | 180 | 185 | 190 | | |
| Ile | Val | Gly | Pro | Asp | Gly | Leu | Val | Tyr | Ala | Val | Glu | Phe | Ser | His | Arg | 195 | 200 | 205 | | |
| Ser | Gly | Arg | Asp | Leu | Ile | Asn | Leu | Ala | Lys | Lys | Arg | Thr | Asn | Ile | Ile | 210 | 215 | 220 | | |
| Pro | Val | Ile | Glu | Asp | Ala | Arg | His | Pro | His | Lys | Tyr | Arg | Met | Leu | Ile | 225 | 230 | 235 | 240 | |
| Ala | Met | Val | Asp | Val | Ile | Phe | Ala | Asp | Val | Ala | Gln | Pro | Asp | Gln | Thr | 245 | 250 | 255 | | |
| Arg | Ile | Val | Ala | Leu | Asn | Ala | His | Thr | Phe | Leu | Arg | Asn | Gly | Gly | His | 260 | 265 | 270 | | |
| Phe | Val | Ile | Ser | Ile | Lys | Ala | Asn | Cys | Ile | Asp | Ser | Thr | Ala | Ser | Ala | 275 | 280 | 285 | | |
| Glu | Ala | Val | Phe | Ala | Ser | Glu | Val | Lys | Lys | Met | Gln | Gln | Glu | Asn | Met | 290 | 295 | 300 | | |
| Lys | Pro | Gln | Glu | Gln | Leu | Thr | Leu | Glu | Pro | Tyr | Glu | Arg | Asp | His | Ala | 305 | 310 | 315 | 320 | |
| Val | Val | Val | Gly | Val | Tyr | Arg | Pro | Pro | Pro | Lys | Val | Lys | Asn | 325 | 330 | | | | | |

1416

<210> 1364

<211> 602

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1364

Pro Gly Ala Glu Lys Ser Gly Arg Ala Ala Glu Arg Pro Gly Arg Gly
 1 5 10 15

Pro Gly Arg Gly Ala His Ser Arg Pro Thr Ala Pro Arg Glu Arg Ala
 20 25 30

Pro Arg Ser Pro Ala Pro Ser Pro Pro Gly Met Gly Arg Ala Ala Ala
 35 40 45

Ala Glu Ala Pro Ala Trp Pro Gly Arg Thr Arg Pro Glu Ala Glu Gly
 50 55 60

Arg Ala Arg Ala Gln Leu Pro Gly His Gln Ile Gly Ala Arg Arg Ala
 65 70 75 80

Gly Gly Pro Arg Ala Gly Leu Glu Met Ser Trp Pro Arg Arg Leu Leu
 85 90 95

Leu Arg Tyr Leu Phe Pro Ala Leu Leu Leu His Gly Leu Gly Glu Gly
 100 105 110

Ser Ala Leu Leu His Pro Asp Ser Arg Ser His Pro Arg Ser Leu Glu
 115 120 125

Lys Ser Ala Trp Arg Ala Phe Lys Glu Ser Gln Cys His His Met Leu
 130 135 140

Lys His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr
 145 150 155 160

Ile Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro
 165 170 175

Glu Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys
 180 185 190

Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr

1417

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Thr Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile | | |
| 210 | 215 | 220 |
| Ile Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val | | |
| 225 | 230 | 235 240 |
| Ile Cys His Thr Glu Ala Val Ala Glu Lys Leu Gly Gln Gln Val Asn | | |
| | 245 | 250 255 |
| Arg Thr Cys Pro Gly Phe Leu Ala Asp Gly Gly Pro Trp Val Gln Asp | | |
| | 260 | 265 270 |
| Val Ala Tyr Asp Leu Trp Arg Glu Glu Asn Gly Cys Glu Cys Thr Lys | | |
| | 275 | 280 285 |
| Ala Val Asn Phe Ala Met His Glu Leu Gln Leu Ile Arg Val Glu Lys | | |
| | 290 | 295 300 |
| Gln Tyr Leu His His Asn Leu Asp His Leu Val Glu Glu Leu Phe Leu | | |
| 305 | 310 | 315 320 |
| Gly Asp Ile His Thr Asp Ala Thr Gln Arg Met Phe Tyr Arg Pro Ser | | |
| | 325 | 330 335 |
| Ser Tyr Gln Pro Pro Leu Gln Asn Ala Lys Asn His Asp His Ala Cys | | |
| | 340 | 345 350 |
| Ile Ala Cys Xaa Ile Ile Tyr Arg Ser Asp Glu His His Pro Pro Ile | | |
| | 355 | 360 365 |
| Leu Pro Pro Lys Ala Asp Leu Thr Ile Gly Leu His Gly Glu Trp Val | | |
| | 370 | 375 380 |
| Ser Gln Arg Cys Glu Val Arg Pro Glu Val Leu Phe Leu Thr Arg His | | |
| 385 | 390 | 395 400 |
| Phe Ile Phe His Asp Asn Asn Asn Thr Trp Glu Gly His Tyr Tyr His | | |
| | 405 | 410 415 |
| Tyr Ser Asp Pro Val Cys Lys His Pro Thr Phe Ser Ile Tyr Ala Arg | | |
| | 420 | 425 430 |
| Gly Arg Tyr Ser Arg Gly Val Leu Ser Ser Arg Val Met Gly Gly Thr | | |
| | 435 | 440 445 |
| Glu Phe Val Phe Lys Val Asn His Met Lys Val Thr Pro Met Asp Ala | | |
| | 450 | 455 460 |
| Ala Thr Ala Ser Leu Leu Asn Val Phe Asn Gly Asn Glu Cys Gly Ala | | |

1419

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1365

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ser | Gly | Tyr | Pro | Phe | Trp | Thr | Pro | Ser | Met | Leu | Trp | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Phe | Thr | Leu | Leu | Asn | Lys | Ala | Xaa | Ser | Phe | Phe | Ser | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Val | Ser | Phe | Thr | His | Xaa | Gly | Gln | Leu | Pro | His | His | Phe | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Ala | Trp | Gln | Glu | Pro | Gln | Val | Leu | His | Leu | Gly | Glu | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Gln | Lys | Arg | Ile | Lys | Ala | Ile | Lys | Leu | Gln | Xaa | Ile | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Met | Glu | Pro | Gln | Met | Ser | Ser | Ala | His | Gly | Phe | Tyr | Arg | Gly | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Gln | Pro | Ala | Gly | Pro | Ser | Ile | Thr | Leu | Glu | Asn | Ser | Pro | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Thr | Lys | Leu | Gln | Gly | Pro | Phe | Phe | Thr | Pro | Asn | Gln | Gln | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Arg | Thr | Asp | Cys | His | Xaa | Val | Pro | Asn | Ser | Xaa | Xaa | Gly | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Leu | Glu | Ala | Gly | Phe | Arg | Gly | Gly | Ala | Gln | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | |

<210> 1366

1420

<211> 466

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (205)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (220)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (347)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1366

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Arg | Xaa | Arg | Glu | Gly | Asn | Ser | His | Ser | Xaa | Gly | His | Lys | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Gly | Ser | Leu | Gly | Arg | Leu | Ser | Ser | Ala | Val | Pro | Gly | Ser | Gly |
| | | 20 | | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Leu | Ser | Pro | Val | Pro | Asn | Thr | Asp | Gly | Thr | Met | Asn | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Phe | Ser | Gln | Thr | Pro | Ser | Ala | Ser | Phe | His | Gly | Ala | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | Gly | Arg | Pro | Arg | Ser | Phe | Pro | Arg | Ala | Pro | Thr | Val | His | Gly |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Gly | Gly | Ala | Arg | Ile | Ser | Leu | Ser | Phe | Thr | Thr | Arg | Ser | Cys |
| | | | | 85 | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Pro | Gly | Gly | Ser | Trp | Gly | Ser | Gly | Arg | Ser | Ser | Pro | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala
 115 120 125

Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu
 130 135 140

Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys
 145 150 155 160

Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln
 165 170 175

Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp
 180 185 190

Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu
 195 200 205

His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg
 210 215 220

Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val
 225 230 235 240

Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln
 245 250 255

Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys
 260 265 270

Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met
 275 280 285

Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp
 290 295 300

Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser
 305 310 315 320

Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg
 325 330 335

Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys
 340 345 350

Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys
 355 360 365

Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val
 385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg
 405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser
 420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu
 435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys
 450 455 460

His Ala
 465

<210> 1367
 <211> 153
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (136)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (138)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (141)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (142)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (143)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1423

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1367

Leu Arg Phe Ala Ser Pro Gly Pro Gly Ala Gly Arg Ala Arg Asp Ser
1 5 10 15

Gln Arg Lys Trp Arg Arg Leu Arg Ala Arg Pro Leu Leu Gly Pro Gly
20 25 30

Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg
35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala
50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala
65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp
85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro
100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala
115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr
130 135 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala
145 150

<210> 1368

<211> 399

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

1424

<400> 1368

```

Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr
 1           5           10           15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu
      20           25           30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu
 35           40           45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg
 50           55           60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser
 65           70           75           80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met
      85           90           95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile
      100           105           110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu
      115           120           125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile
      130           135           140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly
      145           150           155           160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu
      165           170           175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu
      180           185           190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr
      195           200           205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys
      210           215           220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro
      225           230           235           240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu
      245           250           255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu

```

1425

| | | |
|---|-----|---------|
| 260 | 265 | 270 |
| Asn Lys Lys Asn Val Glu Ala Ile Gly Leu Leu Gly Gly Gln Lys Ser | | |
| 275 | 280 | 285 |
| Lys Ala Asp Tyr Glu Leu Tyr Asn Lys Ala Ser Asn Pro Asp Lys Val | | |
| 290 | 295 | 300 |
| Ala Ser Thr Ala Phe Ala Glu Asn Arg Asn Ser Glu Thr Ser Asp Thr | | |
| 305 | 310 | 315 320 |
| Thr Gly Thr His Glu Ser Asp Arg Asn Lys Glu Ser Ser Asp Gln Thr | | |
| | 325 | 330 335 |
| Gly Ile Asn Ile Ser Gly Phe Glu Asn Lys Ile Ser Tyr Val Val Gln | | |
| | 340 | 345 350 |
| Ser Leu Lys Glu Tyr Glu Gly Lys Trp Leu Leu Phe Asp Asp Ser Glu | | |
| | 355 | 360 365 |
| Val Lys Val Thr Glu Glu Lys Asp Phe Leu Asn Ser Leu Ser Pro Ser | | |
| | 370 | 375 380 |
| Thr Ser Pro Thr Ser Thr Pro Tyr Leu Leu Phe Tyr Lys Lys Leu | | |
| 385 | 390 | 395 |

<210> 1369

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1369

| |
|---|
| Val Phe Xaa Ser Phe Phe Ala Glu Lys Glu Gln Gln Glu Ala Ile Glu |
| 1 5 10 15 |

| |
|---|
| His Ile Asp Glu Val Gln Asn Glu Ile Asp Arg Leu Asn Glu Gln Ala |
| 20 25 30 |

| |
|---|
| Ser Glu Glu Ile Leu Lys Val Glu Gln Lys Tyr Asn Lys Leu Arg Gln |
| 35 40 45 |

| |
|---|
| Pro Phe Phe Gln Lys Arg Ser Glu Leu Ile Ala Lys Ile Pro Asn Phe |
| 50 55 60 |

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly
 65 70 75 80
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr
 85 90 95
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp
 100 105 110
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu
 115 120 125
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys
 130 135 140
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala
 145 150 155 160
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe
 165 170 175
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys
 180 185 190
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met
 195 200 205
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu
 210 215 220
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly
 225 230 235 240
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu
 245 250 255
 Gly Glu Asp Asp
 260

<210> 1370

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

| | | | | | |
|---|-----|-----|-----|----|----|
| | 20 | | 25 | | 30 |
| Gln Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala | 35 | 40 | 45 | | |
| Gly Leu Gln Phe Pro Val Gly Glu Cys Ile Ala Leu Arg Lys Gly Asn | 50 | 55 | 60 | | |
| Tyr Ala Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Met Ala Ala Val | 65 | 70 | 75 | 80 | |
| Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala | 85 | 90 | 95 | | |
| Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala | 100 | 105 | 110 | | |
| Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile | 115 | 120 | 125 | | |
| Ala Gln Gly Gly Val Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys | 130 | 135 | 140 | | |
| Lys Thr Glu Ser His His Lys Ala Lys Gly Lys | 145 | 150 | 155 | | |

<210> 1371

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1371

| | | | | |
|---|----|----|----|----|
| Phe Pro Gly Arg Thr His Ala Leu Cys Arg Gly Ala Ala Ser Arg Gly | 1 | 5 | 10 | 15 |
| Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr | 20 | 25 | 30 | |
| Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr | 35 | 40 | 45 | |
| Ser Gln Gln Ala Lys Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser | 50 | 55 | 60 | |
| Trp Pro Pro Thr Thr Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala | 65 | 70 | 75 | 80 |
| Thr Ala Pro Ala Ala Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr | 85 | 90 | 95 | |

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser
 100 105 110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro
 115 120 125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala
 130 135 140

<210> 1372

<211> 150

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala
 1 5 10 15

1429

Gly Ser Arg Arg Arg Phe Ser Asp Ser Glu Gly Glu Glu Thr Val Pro
 20 25 30
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn
 35 40 45
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val
 50 55 60
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser
 65 70 75 80
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn
 85 90 95
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu
 100 105 110
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa
 115 120 125
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys
 130 135 140
 Ala Leu Xaa Gly Thr Ala
 145 150

<210> 1373

<211> 128

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1373

Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg
 1 5 10 15
 Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro
 20 25 30

1430

Glu His Val Asp Ala His Pro Pro Leu Ser Leu Met Glu Val Val Thr
 35 40 45

Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu
 50 55 60

Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His
 65 70 75 80

Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu
 85 90 95

Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln
 100 105 110

Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala
 115 120 125

<210> 1374

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1374

Ser Ser Trp Leu Arg Ser Arg Ser Gly Met Gln Thr Asp Leu Gln Asn
 1 5 10 15

Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln
 20 25 30

Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp
 35 40 45

Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys
 50 55 60

Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly
 65 70 75 80

Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp
 85 90 95

Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser
 100 105 110

Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

1431

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu | | |
| 130 | 135 | 140 |
| Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr | | |
| 145 | 150 | 155 |
| Val Lys Lys Glu Glu Ser Pro Pro Pro Pro Lys Val Val Asn Pro Leu | | |
| | 165 | 170 |
| | | 175 |
| Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu | | |
| | 180 | 185 |
| | | 190 |
| Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro | | |
| | 195 | 200 |
| | | 205 |
| Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu | | |
| | 210 | 215 |
| | | 220 |
| Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro | | |
| | 225 | 230 |
| | | 235 |
| | | 240 |
| Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys | | |
| | 245 | 250 |
| | | 255 |
| Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu | | |
| | 260 | 265 |
| | | 270 |
| Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly | | |
| | 275 | 280 |
| | | 285 |
| Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys | | |
| | 290 | 295 |
| | | 300 |
| Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp | | |
| | 305 | 310 |
| | | 315 |
| | | 320 |
| Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala | | |
| | 325 | 330 |
| | | 335 |
| Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu | | |
| | 340 | 345 |
| | | 350 |
| Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly | | |
| | 355 | 360 |
| | | 365 |
| Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp | | |
| | 370 | 375 |
| | | 380 |
| Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp | | |

1432

385

390

395

<210> 1375

<211> 167

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (163)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1375

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Gly | Lys | Arg | Tyr | Thr | Asp | Ser | Thr | Val | Arg | Asn | Ser | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Arg | Val | Arg | Ser | Ala | Lys | Pro | Glu | Ser | Cys | Pro | Phe | Ser | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gln | His | Glu | Leu | His | His | Ser | Leu | His | Leu | Leu | His | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Pro | Gly | Leu | Cys | Pro | Gly | Ala | Gln | Leu | Arg | Arg | Pro | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Arg | Gly | Gln | Arg | Leu | Cys | Arg | Arg | Trp | Gly | Leu | Trp | Phe | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Arg | Val | Pro | Leu | His | Gln | Leu | Gln | Gly | Arg | His | Gly | Val | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Gly | His | Arg | Asp | Ser | Arg | Gly | Ser | Gly | Arg | Asn | Gly | Ser | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Glu | Lys | Glu | Thr | Met | Gln | Lys | Leu | Asn | Asp | Arg | Leu | Ala | Ser |
| | | 115 | | | | | | 120 | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Asp | Lys | Met | Lys | Glu | Pro | Gly | Asp | Arg | Glu | Thr | Gly | Gly | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln
 165

<210> 1376

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe
 180 185 190

1434

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Trp | Ser | Glu | Ile | Gln | Lys | Gly | Val | Arg | Glu | Val | Thr | Glu | Pro | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asn | Leu | Asn | Pro | Ala | Lys | Arg | Pro | Arg | Arg | Gln | Asp | Trp | Asp | Gly | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Tyr | Glu | Asn | Gly | Ser | Phe | Tyr | Phe | Ala | Lys | Arg | His | Leu | Ile | Glu |
| | 225 | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Gly | Tyr | Leu | Gln | Gly | Gly | Lys | Met | Ala | Tyr | Tyr | Glu | Met | Arg | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | His | Ser | Val | Asp | Ile | Asp | Val | Asp | Ile | Asp | Trp | Pro | Ile | Ala | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Arg | Val | Leu | Arg | Tyr | Gly | Tyr | Phe | Gly | Lys | Glu | Lys | Leu | Lys | Glu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ile | Lys | Leu | Leu | Val | Cys | Asn | Ile | Asp | Gly | Cys | Leu | Thr | Asn | Gly | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Tyr | Val | Ser | Gly | Asp | Gln | Lys | Glu | Ile | Ile | Ser | Tyr | Asp | Val | Lys |
| | 305 | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Ala | Ile | Gly | Ile | Ser | Leu | Leu | Lys | Lys | Ser | Gly | Ile | Glu | Val | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Ile | Ser | Glu | Arg | Ala | Cys | Ser | Lys | Gln | Thr | Leu | Ser | Ser | Leu | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Asp | Cys | Lys | Met | Glu | Val | Ser | Val | Ser | Asp | Lys | Leu | Ala | Val | Val |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Asp | Glu | Trp | Arg | Lys | Glu | Met | Gly | Leu | Cys | Trp | Lys | Glu | Val | Ala | Tyr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Gly | Asn | Glu | Val | Ser | Asp | Glu | Glu | Cys | Leu | Lys | Arg | Val | Gly | Leu |
| | 385 | | | | 390 | | | | | 395 | | | | | 400 |
| Ser | Gly | Ala | Pro | Ala | Asp | Ala | Cys | Ser | Thr | Ala | Gln | Lys | Ala | Val | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Ile | Cys | Lys | Cys | Asn | Gly | Gly | Arg | Gly | Ala | Ile | Arg | Glu | Phe | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | His | Ile | Cys | Leu | Leu | Met | Glu | Lys | Val | Asn | Asn | Ser | Cys | Gln | Lys |
| | 435 | | | | | | 440 | | | | | 445 | | | |

1435

<210> 1377

<211> 469

<212> PRT

<213> Homo sapiens

<400> 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu
 1 5 10 15

Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg
 20 25 30

Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val
 35 40 45

Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His
 50 55 60

Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp
 65 70 75 80

Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu
 85 90 95

Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val
 100 105 110

Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro
 115 120 125

Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala
 130 135 140

Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp
 145 150 155 160

Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn
 165 170 175

His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg
 180 185 190

Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu
 195 200 205

Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala
 210 215 220

Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

225 230 235 240
 Lys Leu Gly Ser Met His Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu
 245 250 255
 Asp Pro Val Thr Glu Arg Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser
 260 265 270
 Gly Leu Val Thr Arg Leu Arg Glu Arg Pro Ala Leu Leu Val Ser Ser
 275 280 285
 Thr Ser Trp Thr Glu Asp Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu
 290 295 300
 Glu Lys Phe Glu Gln Leu Thr Leu Asp Gly His Asn Leu Pro Ser Leu
 305 310 315 320
 Val Cys Val Ile Thr Gly Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg
 325 330 335
 Leu Ile His Gln Lys His Phe Gln His Ile Gln Val Cys Thr Pro Trp
 340 345 350
 Leu Glu Ala Glu Asp Tyr Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly
 355 360 365
 Val Cys Leu His Thr Ser Ser Ser Gly Leu Asp Leu Pro Met Lys Val
 370 375 380
 Val Asp Met Phe Gly Cys Cys Leu Pro Val Cys Ala Val Asn Phe Lys
 385 390 395 400
 Cys Leu His Glu Leu Val Lys His Glu Glu Asn Gly Leu Val Phe Glu
 405 410 415
 Asp Ser Glu Glu Leu Ala Ala Gln Leu Gln Met Leu Phe Ser Asn Phe
 420 425 430
 Pro Asp Pro Ala Gly Lys Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu
 435 440 445
 Ser Gln Gln Leu Arg Trp Asp Glu Ser Trp Val Gln Thr Val Leu Pro
 450 455 460
 Leu Val Met Asp Thr
 465

<210> 1378

<211> 314

1437

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1378

Glu Lys Ala Ala Gly Ala Gly Lys Ser His Leu Ala Ile Val Gln Lys

1

5

10

15

Val Asn Asn Glu Gly Glu Gly Asp Pro Phe Tyr Glu Val Leu Gly Leu

20

25

30

Val Thr Leu Glu Asp Val Ile Glu Glu Ile Ile Lys Ser Glu Ile Leu

35

40

45

Asp Glu Ser Asp Met Tyr Thr Asp Asn Arg Ser Arg Lys Arg Val Ser

50

55

60

Glu Lys Asn Lys Arg Asp Phe Ser Ala Phe Lys Asp Ala Asp Asn Glu

65

70

75

80

Leu Lys Val Lys Ile Ser Pro Gln Leu Leu Leu Ala Xaa His Arg Phe

85

90

95

Leu Ala Thr Glu Val Ser Gln Phe Ser Pro Ser Leu Ile Ser Glu Lys

100

105

110

Ile Leu Leu Arg Leu Leu Lys Tyr Pro Asp Val Ile Gln Glu Leu Lys

115

120

125

Phe Asp Glu His Asn Lys Tyr Tyr Ala Arg His Tyr Leu Tyr Thr Arg

130

135

140

Asn Lys Pro Ala Asp Tyr Phe Ile Leu Ile Leu Gln Gly Lys Val Glu

145

150

155

160

Val Glu Ala Gly Lys Glu Asn Met Lys Phe Glu Thr Gly Ala Phe Ser

165

170

175

Tyr Tyr Gly Thr Met Ala Leu Thr Ser Val Pro Ser Asp Arg Ser Pro

180

185

190

Ala His Pro Thr Pro Leu Ser Arg Ser Ala Ser Leu Ser Tyr Pro Asp

195

200

205

Arg Thr Asp Val Ser Thr Ala Ala Thr Leu Ala Gly Ser Ser Asn Gln

210

215

220

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg
225 230 235 240

Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln
245 250 255

Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile
260 265 270

Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu
275 280 285

Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu
290 295 300

Leu His Lys Ala Ser His Glu Asn Ala Ile
305 310

<210> 1379

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1379

Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe
1 5 10 15

Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp
20 25 30

His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys
35 40 45

Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val
50 55 60

Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro
65 70 75 80

Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His
85 90 95

Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu
100 105 110

Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln
115 120 125

Ser His Leu

1439

130

<210> 1380

<211> 219

<212> PRT

<213> Homo sapiens

<400> 1380

Pro Gly Ala Ala Trp Ser Arg Pro Asp Leu Arg Gly Cys Cys Thr Gly
 1 5 10 15

Pro Gln Pro Ala Leu Arg Met Leu Val Leu Pro Ser Pro Cys Pro Gln
 20 25 30

Pro Leu Ala Phe Ser Ser Val Glu Thr Met Glu Gly Pro Pro Arg Arg
 35 40 45

Thr Cys Arg Ser Pro Glu Pro Gly Pro Ser Ser Ser Ile Gly Ser Pro
 50 55 60

Gln Ala Ser Ser Pro Pro Arg Pro Asn His Tyr Leu Leu Ile Asp Thr
 65 70 75 80

Gln Gly Val Pro Tyr Thr Val Leu Val Asp Glu Glu Ser Gln Arg Glu
 85 90 95

Pro Gly Ala Ser Gly Ala Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro
 100 105 110

Val Cys Ser Arg Val Phe Glu Tyr Met Ser Tyr Leu Gln Arg His Ser
 115 120 125

Ile Thr His Ser Glu Val Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys
 130 135 140

Ala Phe Lys Arg Ala Ser His Leu Ala Arg His His Ser Ile His Leu
 145 150 155 160

Ala Gly Gly Gly Arg Pro His Gly Cys Pro Leu Cys Pro Arg Arg Phe
 165 170 175

Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg Val His Ser Gly Glu
 180 185 190

Arg Pro Phe Gln Cys Pro His Cys Pro Arg Arg Phe Met Glu Gln Asn
 195 200 205

Thr Leu Gln Lys His Thr Arg Trp Lys His Pro
 210 215

1440

<210> 1381

<211> 275

<212> PRT

<213> Homo sapiens

<400> 1381

Gly Val Ala Leu Phe Lys Ser Ala Ala Gly Asp Gln Pro Thr Ala Ala
 1 5 10 15

Cys Ile Cys Ile Gln Arg Gln Val Pro Pro Val Pro Ala Ala Arg Ala
 20 25 30

Pro Gln Ser Arg Thr Arg Ser Ala Gln Ala Lys Leu Ala Leu Thr Met
 35 40 45

Pro Val Lys Gly Gly Thr Lys Cys Ile Lys Tyr Leu Leu Phe Gly Phe
 50 55 60

Asn Phe Ile Phe Trp Leu Ala Gly Ile Ala Val Leu Ala Ile Gly Leu
 65 70 75 80

Trp Leu Arg Phe Asp Ser Gln Thr Lys Ser Ile Phe Glu Gln Glu Thr
 85 90 95

Asn Asn Asn Asn Ser Ser Phe Tyr Thr Gly Val Tyr Ile Leu Ile Gly
 100 105 110

Ala Gly Ala Leu Met Met Leu Val Gly Phe Leu Gly Cys Cys Gly Ala
 115 120 125

Val Gln Glu Ser Gln Cys Met Leu Gly Leu Phe Phe Gly Phe Leu Leu
 130 135 140

Val Ile Phe Ala Ile Glu Ile Ala Ala Ala Ile Trp Gly Tyr Ser His
 145 150 155 160

Lys Asp Glu Val Ile Lys Glu Val Gln Glu Phe Tyr Lys Asp Thr Tyr
 165 170 175

Asn Lys Leu Lys Thr Lys Asp Glu Pro Gln Arg Glu Thr Leu Lys Ala
 180 185 190

Ile His Tyr Ala Leu Asn Cys Cys Gly Leu Ala Gly Gly Val Glu Gln
 195 200 205

Phe Ile Ser Asp Ile Cys Pro Lys Lys Asp Val Leu Glu Thr Phe Thr
 210 215 220

1441

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe
225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe
245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg
260 265 270

Glu Met Val
275

<210> 1382

<211> 766

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala
1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser
20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met
35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu
50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr
65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
| Val | Asp | Leu | Asp | Asp | Val | Ala | Glu | Asp | Asp | Pro | Glu | Leu | Val | Asp | Ser | | | | |
| | | | 100 | | | | 105 | | | | | | 110 | | | | | | |
| Ile | Cys | Glu | Asn | Ala | Arg | Arg | Tyr | Ala | Lys | Xaa | Phe | Ala | Asp | Ala | Val | | | | |
| | | | 115 | | | | 120 | | | | | | 125 | | | | | | |
| Gln | Glu | Leu | Leu | Pro | Gln | Tyr | Lys | Glu | Arg | Glu | Val | Val | Asn | Lys | Asp | | | | |
| | | | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Val | Leu | Asp | Val | Tyr | Ile | Glu | His | Arg | Leu | Met | Met | Glu | Gln | Arg | Ser | | | | |
| | | | 145 | | | | 150 | | | | | | 155 | | | 160 | | | |
| Arg | Asp | Pro | Gly | Met | Val | Arg | Ser | Pro | Gln | Asn | Gln | Tyr | Pro | Ala | Glu | | | | |
| | | | 165 | | | | | | 170 | | | | | | 175 | | | | |
| Leu | Met | Arg | Arg | Phe | Glu | Leu | Tyr | Phe | Gln | Gly | Pro | Ser | Ser | Asn | Lys | | | | |
| | | | 180 | | | | | | 185 | | | | | | 190 | | | | |
| Pro | Arg | Val | Ile | Arg | Glu | Val | Arg | Ala | Asp | Ser | Val | Gly | Lys | Leu | Val | | | | |
| | | | 195 | | | | | | 200 | | | | | | 205 | | | | |
| Thr | Val | Arg | Gly | Ile | Val | Thr | Arg | Val | Ser | Glu | Val | Lys | Pro | Lys | Met | | | | |
| | | | 210 | | | | | | 215 | | | | | | 220 | | | | |
| Val | Val | Ala | Thr | Tyr | Thr | Cys | Asp | Gln | Cys | Gly | Ala | Glu | Thr | Tyr | Gln | | | | |
| | | | 225 | | | | | | 230 | | | | | | 235 | | | | |
| Pro | Ile | Gln | Ser | Pro | Thr | Phe | Met | Pro | Leu | Ile | Met | Cys | Pro | Ser | Gln | | | | |
| | | | 245 | | | | | | 250 | | | | | | 255 | | | | |
| Glu | Cys | Gln | Thr | Asn | Arg | Ser | Gly | Gly | Arg | Leu | Tyr | Leu | Gln | Thr | Arg | | | | |
| | | | 260 | | | | | | 265 | | | | | | 270 | | | | |
| Gly | Ser | Arg | Phe | Ile | Lys | Phe | Gln | Glu | Met | Lys | Met | Gln | Glu | His | Ser | | | | |
| | | | 275 | | | | | | 280 | | | | | | 285 | | | | |
| Asp | Gln | Val | Pro | Val | Gly | Asn | Ile | Pro | Arg | Ser | Ile | Thr | Val | Leu | Val | | | | |
| | | | 290 | | | | | | 295 | | | | | | 300 | | | | |
| Glu | Gly | Glu | Asn | Thr | Arg | Ile | Ala | Gln | Pro | Gly | Asp | His | Val | Ser | Val | | | | |
| | | | 305 | | | | | | 310 | | | | | | 315 | | | | |
| Thr | Gly | Ile | Phe | Leu | Pro | Ile | Leu | Arg | Thr | Gly | Phe | Arg | Gln | Val | Val | | | | |
| | | | 325 | | | | | | 330 | | | | | | 335 | | | | |
| Gln | Gly | Leu | Leu | Ser | Glu | Thr | Tyr | Leu | Glu | Ala | His | Arg | Ile | Val | Lys | | | | |
| | | | 340 | | | | | | 345 | | | | | | 350 | | | | |
| Met | Asn | Lys | Ser | Glu | Asp | Asp | Glu | Ser | Gly | Ala | Gly | Glu | Leu | Thr | Arg | | | | |

1443

| | | | | |
|---|-----|-----|-----|-----|
| 355 | | 360 | | 365 |
| Glu Glu Leu Arg Gln Ile Ala Glu Glu Asp Phe Tyr Glu Lys Leu Ala | | | | |
| 370 | | 375 | | 380 |
| Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala | | | | |
| 385 | | 390 | | 400 |
| Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met | | | | |
| | 405 | | 410 | 415 |
| Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val | | | | |
| | 420 | | 425 | 430 |
| Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser | | | | |
| | 435 | | 440 | 445 |
| Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala | | | | |
| | 450 | | 455 | 460 |
| Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala | | | | |
| | 465 | | 470 | 475 |
| Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys | | | | |
| | 485 | | 490 | 495 |
| Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln | | | | |
| | 500 | | 505 | 510 |
| Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg | | | | |
| | 515 | | 520 | 525 |
| Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro | | | | |
| | 530 | | 535 | 540 |
| Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser | | | | |
| | 545 | | 550 | 555 |
| Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn | | | | |
| | 565 | | 570 | 575 |
| Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg | | | | |
| | 580 | | 585 | 590 |
| Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg | | | | |
| | 595 | | 600 | 605 |
| Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu | | | | |
| | 610 | | 615 | 620 |
| Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp | | | | |

1444

625 630 635 640
 Ala Ser Lys Asp Ala Thr Tyr Thr Ser Ala Arg Thr Leu Leu Ala Ile
 645 650 655
 Leu Arg Leu Ser Thr Ala Leu Ala Arg Leu Arg Met Val Asp Val Val
 660 665 670
 Glu Lys Glu Asp Val Asn Glu Ala Ile Arg Leu Met Glu Met Ser Lys
 675 680 685
 Asp Ser Leu Leu Gly Asp Lys Gly Gln Thr Ala Arg Thr Gln Arg Pro
 690 695 700
 Ala Asp Val Ile Phe Ala Thr Val Arg Glu Leu Val Ser Gly Gly Arg
 705 710 715 720
 Ser Val Arg Phe Ser Glu Ala Glu Gln Arg Cys Val Ser Arg Gly Phe
 725 730 735
 Thr Pro Ala Gln Phe Gln Ala Ala Leu Asp Glu Tyr Glu Glu Leu Asn
 740 745 750
 Val Trp Gln Val Asn Ala Ser Arg Thr Arg Ile Thr Phe Val
 755 760 765

<210> 1383

<211> 296

<212> PRT

<213> Homo sapiens

<400> 1383

Phe Arg Pro Gly Ser Pro Arg Gln Pro Arg Ala Gln Pro Ile Ser Ala
 1 5 10 15
 Pro Asp Cys Thr Arg Ala Met Val Gly Arg Arg Ala Leu Ile Val Leu
 20 25 30
 Ala His Ser Glu Arg Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala
 35 40 45
 Ala Ala Ala Leu Lys Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu
 50 55 60
 Tyr Ala Met Asn Phe Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly
 65 70 75 80
 Lys Leu Lys Asp Pro Ala Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu
 85 90 95

1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys
 100 105 110

Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp
 115 120 125

Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile
 130 135 140

Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe
 145 150 155 160

Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser
 165 170 175

Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp
 180 185 190

Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu
 195 200 205

Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile
 210 215 220

Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu
 225 230 235 240

Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln
 245 250 255

Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys
 260 265 270

Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr
 275 280 285

Asp Asn Gln Ile Lys Ala Arg Lys
 290 295

<210> 1384

<211> 165

<212> PRT

<213> Homo sapiens

<400> 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr
 1 5 10 15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys
 20 25 30
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser
 35 40 45
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys
 50 55 60
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser
 65 70 75 80
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser
 85 90 95
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His
 100 105 110
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg
 115 120 125
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr
 130 135 140
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr
 145 150 155 160
 Asp Phe Met Ser Leu
 165

<210> 1385

<211> 399

<212> PRT

<213> Homo sapiens

<400> 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro
 1 5 10 15
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu
 20 25 30
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala
 35 40 45
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln
 50 55 60
 Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

1447

| | | | | | | |
|---|-----|----|--|-----|--|-----|
| 65 | | 70 | | 75 | | 80 |
| Leu Ala Thr Tyr Thr Asn Lys Asn Gly Ser Phe Ala Asn Leu Arg Ile | | | | | | |
| | 85 | | | 90 | | 95 |
| Tyr Pro His Gly Leu Val Leu Leu Asp Leu Gln Ser Tyr Asp Gly Asp | | | | | | |
| | 100 | | | 105 | | 110 |
| Ala Gln Gly Lys Glu Glu Ile Asp Ser Ile Leu Asn Lys Val Glu Glu | | | | | | |
| | 115 | | | 120 | | 125 |
| Arg Met Lys Glu Leu Ser Gln Asp Ser Thr Gly Arg Val Lys Arg Leu | | | | | | |
| | 130 | | | 135 | | 140 |
| Pro Pro Ile Val Arg Gly Gly Ala Ile Asp Arg Tyr Trp Pro Thr Ala | | | | | | |
| | 145 | | | 150 | | 155 |
| Asp Gly Arg Leu Val Glu Tyr Asp Ile Asp Glu Val Val Tyr Asp Glu | | | | | | |
| | 165 | | | 170 | | 175 |
| Asp Ser Pro Tyr Gln Asn Ile Lys Ile Leu His Ser Lys Gln Phe Gly | | | | | | |
| | 180 | | | 185 | | 190 |
| Asn Ile Leu Ile Leu Ser Gly Asp Val Asn Leu Ala Glu Ser Asp Leu | | | | | | |
| | 195 | | | 200 | | 205 |
| Ala Tyr Thr Arg Ala Ile Met Gly Ser Gly Lys Glu Asp Tyr Thr Gly | | | | | | |
| | 210 | | | 215 | | 220 |
| Lys Asp Val Leu Ile Leu Gly Gly Gly Asp Gly Gly Ile Leu Cys Glu | | | | | | |
| | 225 | | | 230 | | 235 |
| Ile Val Lys Leu Lys Pro Lys Met Val Thr Met Val Glu Ile Asp Gln | | | | | | |
| | 245 | | | 250 | | 255 |
| Met Val Ile Asp Gly Cys Lys Lys Tyr Met Arg Lys Thr Cys Gly Asp | | | | | | |
| | 260 | | | 265 | | 270 |
| Val Leu Asp Asn Leu Lys Gly Asp Cys Tyr Gln Val Leu Ile Glu Asp | | | | | | |
| | 275 | | | 280 | | 285 |
| Cys Ile Pro Val Leu Lys Arg Tyr Ala Lys Glu Gly Arg Glu Phe Asp | | | | | | |
| | 290 | | | 295 | | 300 |
| Tyr Val Ile Asn Asp Leu Thr Ala Val Pro Ile Ser Thr Ser Pro Glu | | | | | | |
| | 305 | | | 310 | | 315 |
| Glu Asp Ser Thr Trp Glu Phe Leu Arg Leu Ile Leu Asp Leu Ser Met | | | | | | |
| | 325 | | | 330 | | 335 |
| Lys Val Leu Lys Gln Asp Gly Lys Tyr Phe Thr Gln Gly Asn Cys Val | | | | | | |

1448

340 345 350
 Asn Leu Thr Glu Ala Leu Ser Leu Tyr Glu Glu Gln Leu Gly Arg Leu
 355 360 365
 Tyr Cys Pro Val Glu Phe Ser Lys Glu Ile Val Cys Val Pro Ser Tyr
 370 375 380
 Leu Glu Leu Trp Val Phe Tyr Thr Val Trp Lys Lys Ala Lys Pro
 385 390 395

<210> 1386

<211> 287

<212> PRT

<213> Homo sapiens

<400> 1386

Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His
 1 5 10 15
 Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu
 20 25 30
 Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala
 35 40 45
 Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu
 50 55 60
 Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp
 65 70 75 80
 Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr
 85 90 95
 Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly
 100 105 110
 Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu
 115 120 125
 Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala
 130 135 140
 Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys
 145 150 155 160
 Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg
 165 170 175

1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly
 180 185 190
 Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg
 195 200 205
 Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg
 210 215 220
 Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met
 225 230 235 240
 Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly
 245 250 255
 Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn
 260 265 270
 Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln
 275 280 285

<210> 1387

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro
 1 5 10 15
 Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp
 20 25 30
 Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp
 35 40 45
 Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu
 50 55 60
 Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu
 65 70 75 80
 Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile
 85 90 95
 Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr
 100 105 110

1450

Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile Leu Asp Gly
 115 120 125

Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp Ile Arg Ile
 130 135 140

Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly Ile Tyr His
 145 150 155 160

Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met Arg Leu Phe
 165 170 175

Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala Asp His Phe
 180 185 190

Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr Ala
 195 200 205

<210> 1388

<211> 394

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1388

Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg
 1 5 10 15

Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His
 20 25 30

Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg
 35 40 45

Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser
 50 55 60

Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu
 65 70 75 80

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly
 85 90 95

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp
 100 105 110

1451

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Gln | Leu | Ser | Lys | Thr | Leu | Glu | Leu | Arg | Val | Ala | Tyr | Leu | Asp | 115 | 120 | 125 |
| Pro | Leu | Glu | Leu | Ser | Glu | Gly | Lys | Val | Leu | Ser | Leu | Pro | Leu | Asn | Ser | 130 | 135 | 140 |
| Ser | Ala | Val | Val | Asn | Cys | Ser | Val | His | Gly | Leu | Pro | Thr | Pro | Ala | Leu | 145 | 150 | 155 |
| Arg | Trp | Thr | Lys | Asp | Ser | Thr | Pro | Leu | Gly | Asp | Gly | Pro | Met | Leu | Ser | 165 | 170 | 175 |
| Leu | Ser | Ser | Ile | Thr | Phe | Asp | Ser | Asn | Gly | Thr | Tyr | Val | Cys | Glu | Ala | 180 | 185 | 190 |
| Ser | Leu | Pro | Thr | Val | Pro | Val | Leu | Ser | Arg | Thr | Gln | Asn | Phe | Thr | Leu | 195 | 200 | 205 |
| Leu | Val | Gln | Gly | Ser | Pro | Glu | Leu | Lys | Thr | Ala | Glu | Ile | Glu | Pro | Lys | 210 | 215 | 220 |
| Ala | Asp | Gly | Ser | Trp | Arg | Glu | Gly | Asp | Glu | Val | Thr | Leu | Ile | Cys | Ser | 225 | 230 | 235 |
| Ala | Arg | Gly | His | Pro | Asp | Pro | Lys | Leu | Ser | Trp | Ser | Gln | Leu | Gly | Gly | 245 | 250 | 255 |
| Ser | Pro | Ala | Glu | Pro | Ile | Pro | Gly | Arg | Gln | Gly | Trp | Val | Ser | Ser | Ser | 260 | 265 | 270 |
| Leu | Thr | Leu | Lys | Val | Thr | Ser | Ala | Leu | Ser | Arg | Asp | Gly | Ile | Ser | Cys | 275 | 280 | 285 |
| Glu | Ala | Ser | Asn | Pro | His | Gly | Asn | Lys | Arg | His | Val | Phe | His | Phe | Gly | 290 | 295 | 300 |
| Thr | Val | Ser | Pro | Gln | Thr | Ser | Gln | Ala | Gly | Val | Ala | Val | Met | Ala | Val | 305 | 310 | 315 |
| Ala | Val | Ser | Val | Gly | Leu | Leu | Leu | Leu | Val | Val | Ala | Val | Phe | Tyr | Cys | 325 | 330 | 335 |
| Val | Arg | Arg | Lys | Gly | Gly | Pro | Cys | Cys | Arg | Gln | Arg | Arg | Glu | Lys | Gly | 340 | 345 | 350 |
| Ala | Pro | Pro | Pro | Gly | Glu | Pro | Gly | Leu | Ser | His | Ser | Gly | Ser | Glu | Gln | 355 | 360 | 365 |
| Pro | Glu | Gln | Thr | Gly | Leu | Leu | Met | Gly | Gly | Ala | Ser | Gly | Gly | Ala | Arg | 370 | 375 | 380 |

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys
385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa
1 5 10 15

Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu
35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln
50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro
65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile
100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu
115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu
130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe
145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu
165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

1453

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr | | |
| 195 | 200 | 205 |
| His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile | | |
| 210 | 215 | 220 |
| Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu | | |
| 225 | 230 | 235 |
| Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu | | |
| 245 | 250 | 255 |
| Leu Glu Glu Val Ile Lys Asp Ile | | |
| 260 | | |

<210> 1390

<211> 178

<212> PRT

<213> Homo sapiens

<400> 1390

| | | | |
|---|-----|-----|----|
| Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly | | | |
| 1 | 5 | 10 | 15 |
| Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala | | | |
| 20 | 25 | 30 | |
| Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe | | | |
| 35 | 40 | 45 | |
| Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro | | | |
| 50 | 55 | 60 | |
| Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn | | | |
| 65 | 70 | 75 | 80 |
| Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val | | | |
| 85 | 90 | 95 | |
| Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile | | | |
| 100 | 105 | 110 | |
| Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg | | | |
| 115 | 120 | 125 | |
| Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg | | | |
| 130 | 135 | 140 | |

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala
 115 120 125

Asn Asn Glu Ile Lys
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

<400> 1392

```

Asn Thr Val Leu Lys Lys Met Asp Glu Glu Pro Glu Arg Thr Lys Arg
 1             5             10             15

Trp Glu Gly Gly Tyr Glu Arg Thr Trp Glu Ile Leu Lys Glu Asp Glu
      20             25             30

Ser Gly Ser Leu Lys Ala Thr Ile Glu Asp Ile Leu Phe Lys Ala Lys
      35             40             45

Arg Lys Arg Val Phe Glu His His Gly Gln Val Arg Leu Gly Met Met
      50             55             60

Arg His Leu Tyr Val Val Val Asp Gly Ser Arg Thr Met Glu Asp Gln
      65             70             75             80

Asp Leu Lys Pro Asn Arg Leu Thr Cys Thr Leu Lys Leu Leu Glu Tyr
      85             90             95

Phe Val Glu Glu Tyr Phe Asp Gln Asn Pro Ile Ser Gln Ile Gly Ile
      100            105            110

Ile Val Thr Lys Ser Lys Arg Ala Glu Lys Leu Thr Glu Leu Ser Gly
      115            120            125

Asn Pro Arg Lys His Ile Thr Ser Leu Lys Lys Ala Val Asp Met Thr
      130            135            140

Cys His Gly Glu Pro Ser Leu Tyr Asn Ser Leu Ser Ile Ala Met Gln
      145            150            155            160

Thr Leu Lys His Met Pro Gly His Thr Ser Arg Glu Val Leu Ile Ile
      165            170            175

Phe Ser Ser Leu Thr Thr Cys Asp Pro Ser Asn Ile Tyr Asp Leu Ile
      180            185            190

Lys Thr Leu Lys Ala Ala Lys Ile Arg Val Ser Val Ile Gly Leu Ser
      195            200            205

Ala Glu Val Arg Val Cys Thr Val Leu Ala Arg Glu Thr Gly Gly Thr
      210            215            220

Tyr His Val Ile Leu Asp Glu Ser His Tyr Lys Glu Leu Leu Thr His
      225            230            235            240

His Val Ser Pro Pro Pro Ala Ser Ser Ser Ser Glu Cys Ser Leu Ile
      245            250            255

Arg Met Gly Phe Pro Gln His Thr Ile Ala Ser Leu Ser Asp Gln Asp

```

1456

| | | |
|---|-------------------------------------|-----|
| 260 | 265 | 270 |
| Ala Lys Pro Ser Phe Ser Met | Ala His Leu Asp Gly Asn Thr Glu Pro | |
| 275 | 280 | 285 |
| Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr | | |
| 290 | 295 | 300 |
| Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser | | |
| 305 | 310 | 315 |
| Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala | | |
| 325 | 330 | 335 |
| Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr | | |
| 340 | 345 | 350 |
| Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val | | |
| 355 | 360 | 365 |
| Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser | | |
| 370 | 375 | 380 |
| Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly | | |
| 385 | 390 | 395 |
| 400 | | |
| Val | | |

<210> 1393

<211> 318

<212> PRT

<213> Homo sapiens

<400> 1393

| | | |
|---|----|----|
| Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser | | |
| 1 | 5 | 10 |
| Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala | | |
| 20 | 25 | 30 |
| Val Gly Thr Met Ala Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser | | |
| 35 | 40 | 45 |
| Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg | | |
| 50 | 55 | 60 |
| Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu | | |
| 65 | 70 | 75 |
| 80 | | |

1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr
 85 90 95
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu
 100 105 110
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met
 115 120 125
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr
 130 135 140
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met
 145 150 155 160
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr
 165 170 175
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu
 180 185 190
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu
 195 200 205
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys
 210 215 220
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg
 225 230 235 240
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala
 245 250 255
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu
 260 265 270
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu
 275 280 285
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys
 290 295 300
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser
 305 310 315

<210> 1394

<211> 1285

<212> PRT

1458

<213> Homo sapiens

<400> 1394

```

Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val
  1              5              10              15

Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val
      20              25              30

Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
      35              40              45

Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu
      50              55              60

Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys
      65              70              75              80

Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala
      85              90              95

Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr
      100              105              110

Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu
      115              120              125

Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val
      130              135              140

Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys
      145              150              155              160

Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe
      165              170              175

Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn
      180              185              190

Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala
      195              200              205

Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn
      210              215              220

Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser
      225              230              235              240

Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His
      245              250              255

```


1459

His Thr Ala Tyr Leu Val Phe Ser Pro Ser Lys Ser Phe Val His Leu
 260 265 270

Glu Pro Met Ser His Glu Leu Pro Cys Gly His Thr Gln Thr Val Gln
 275 280 285

Ala His Tyr Ile Leu Asn Gly Gly Thr Leu Leu Gly Leu Lys Lys Leu
 290 295 300

Ser Phe Tyr Tyr Leu Ile Met Ala Lys Gly Gly Ile Val Arg Thr Gly
 305 310 315 320

Thr His Gly Leu Leu Val Lys Gln Glu Asp Met Lys Gly His Phe Ser
 325 330 335

Ile Ser Ile Pro Val Lys Ser Asp Ile Ala Pro Val Ala Arg Leu Leu
 340 345 350

Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp Ser Ala Lys
 355 360 365

Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu Ser Phe Ser
 370 375 380

Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg Val Thr Ala
 385 390 395 400

Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln Ser Val Leu
 405 410 415

Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val Tyr Asn Leu
 420 425 430

Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu Asn Asp Gln
 435 440 445

Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile Asn Gly Ile
 450 455 460

Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met Tyr Ser Phe
 465 470 475 480

Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys Ile Arg Lys
 485 490 495

Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His Gly Pro Glu
 500 505 510

Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly Arg Gly His
 515 520 525

1460

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Leu | Val | His | Val | Glu | Glu | Pro | His | Thr | Glu | Thr | Val | Arg | Lys | 530 | 535 | 540 | |
| Tyr | Phe | Pro | Glu | Thr | Trp | Ile | Trp | Asp | Leu | Val | Val | Val | Asn | Ser | Ala | 545 | 550 | 555 | 560 |
| Gly | Val | Ala | Glu | Val | Gly | Val | Thr | Val | Pro | Asp | Thr | Ile | Thr | Glu | Trp | 565 | 570 | 575 | |
| Lys | Ala | Gly | Ala | Phe | Cys | Leu | Ser | Glu | Asp | Ala | Gly | Leu | Gly | Ile | Ser | 580 | 585 | 590 | |
| Ser | Thr | Ala | Ser | Leu | Arg | Ala | Phe | Gln | Pro | Phe | Phe | Val | Glu | Leu | Thr | 595 | 600 | 605 | |
| Met | Pro | Tyr | Ser | Val | Ile | Arg | Gly | Glu | Ala | Phe | Thr | Leu | Lys | Ala | Thr | 610 | 615 | 620 | |
| Val | Leu | Asn | Tyr | Leu | Pro | Lys | Cys | Ile | Arg | Val | Ser | Val | Gln | Leu | Glu | 625 | 630 | 635 | 640 |
| Ala | Ser | Pro | Ala | Phe | Leu | Ala | Val | Pro | Val | Glu | Lys | Glu | Gln | Ala | Pro | 645 | 650 | 655 | |
| His | Cys | Ile | Cys | Ala | Asn | Gly | Arg | Gln | Thr | Val | Ser | Trp | Ala | Val | Thr | 660 | 665 | 670 | |
| Pro | Lys | Ser | Leu | Gly | Asn | Val | Asn | Phe | Thr | Val | Ser | Ala | Glu | Ala | Leu | 675 | 680 | 685 | |
| Glu | Ser | Gln | Glu | Leu | Cys | Gly | Thr | Glu | Val | Pro | Ser | Val | Pro | Glu | His | 690 | 695 | 700 | |
| Gly | Arg | Lys | Asp | Thr | Val | Ile | Lys | Pro | Leu | Leu | Val | Glu | Pro | Glu | Gly | 705 | 710 | 715 | 720 |
| Leu | Glu | Lys | Glu | Thr | Thr | Phe | Asn | Ser | Leu | Leu | Cys | Pro | Ser | Gly | Gly | 725 | 730 | 735 | |
| Glu | Val | Ser | Glu | Glu | Leu | Ser | Leu | Lys | Leu | Pro | Pro | Asn | Val | Val | Glu | 740 | 745 | 750 | |
| Glu | Ser | Ala | Arg | Ala | Ser | Val | Ser | Val | Leu | Gly | Asp | Ile | Leu | Gly | Ser | 755 | 760 | 765 | |
| Ala | Met | Gln | Asn | Thr | Gln | Asn | Leu | Leu | Gln | Met | Pro | Tyr | Gly | Cys | Gly | 770 | 775 | 780 | |
| Glu | Gln | Asn | Met | Val | Leu | Phe | Ala | Pro | Asn | Ile | Tyr | Val | Leu | Asp | Tyr | 785 | 790 | 795 | 800 |

| | | | | | | | | | | | | | | | |
|-----|------|-----|------|-----|------|------|------|-----|------|------|------|------|------|------|------|
| Leu | Asn | Glu | Thr | Gln | Leu | Thr | Pro | Glu | Ile | Lys | Ser | Lys | Ala | Ile | |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Gly | Tyr | Leu | Asn | Thr | Gly | Tyr | Gln | Arg | Gln | Leu | Asn | Tyr | Lys | His | Tyr |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Asp | Gly | Ser | Tyr | Ser | Thr | Phe | Gly | Glu | Arg | Tyr | Gly | Arg | Asn | Gln | Gly |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| Asn | Thr | Trp | Leu | Thr | Ala | Phe | Val | Leu | Lys | Thr | Phe | Ala | Gln | Ala | Arg |
| | 850 | | | | | 855 | | | | | 860 | | | | |
| Ala | Tyr | Ile | Phe | Ile | Asp | Glu | Ala | His | Ile | Thr | Gln | Ala | Leu | Ile | Trp |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 |
| Leu | Ser | Gln | Arg | Gln | Lys | Asp | Asn | Gly | Cys | Phe | Arg | Ser | Ser | Gly | Ser |
| | | | 885 | | | | | | 890 | | | | | 895 | |
| Leu | Leu | Asn | Asn | Ala | Ile | Lys | Gly | Gly | Val | Glu | Asp | Glu | Val | Thr | Leu |
| | | 900 | | | | | | 905 | | | | | 910 | | |
| Ser | Ala | Tyr | Ile | Thr | Ile | Ala | Leu | Leu | Glu | Ile | Pro | Leu | Thr | Val | Thr |
| | | 915 | | | | | 920 | | | | | 925 | | | |
| His | Pro | Val | Val | Arg | Asn | Ala | Leu | Phe | Cys | Leu | Glu | Ser | Ala | Trp | Lys |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Thr | Ala | Gln | Glu | Gly | Asp | His | Gly | Ser | His | Val | Tyr | Thr | Lys | Ala | Leu |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 |
| Leu | Ala | Tyr | Ala | Phe | Ala | Leu | Ala | Gly | Asn | Gln | Asp | Lys | Arg | Lys | Glu |
| | | | 965 | | | | | | 970 | | | | | 975 | |
| Val | Leu | Lys | Ser | Leu | Asn | Glu | Glu | Ala | Val | Lys | Lys | Asp | Asn | Ser | Val |
| | | | 980 | | | | | 985 | | | | | 990 | | |
| His | Trp | Glu | Arg | Pro | Gln | Lys | Pro | Lys | Ala | Pro | Val | Gly | His | Phe | Tyr |
| | | 995 | | | | | 1000 | | | | | 1005 | | | |
| Glu | Pro | Gln | Ala | Pro | Ser | Ala | Glu | Val | Glu | Met | Thr | Ser | Tyr | Val | Leu |
| | 1010 | | | | | 1015 | | | | | 1020 | | | | |
| Leu | Ala | Tyr | Leu | Thr | Ala | Gln | Pro | Ala | Pro | Thr | Ser | Glu | Asp | Leu | Thr |
| 025 | | | | | 1030 | | | | | 1035 | | | | | 1040 |
| Ser | Ala | Thr | Asn | Ile | Val | Lys | Trp | Ile | Thr | Lys | Gln | Gln | Asn | Ala | Gln |
| | | | 1045 | | | | | | 1050 | | | | | 1055 | |
| Gly | Gly | Phe | Ser | Ser | Thr | Gln | Asp | Thr | Val | Val | Ala | Leu | His | Ala | Leu |
| | | | 1060 | | | | 1065 | | | | | | 1070 | | |

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln
1075 1080 1085

Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp
1090 1095 1100

Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro
1105 1110 1115 1120

Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln
1125 1130 1135

Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe
1140 1145 1150

Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala
1155 1160 1165

His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg
1170 1175 1180

Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe
1185 1190 1195 1200

Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val
1205 1210 1215

Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys
1220 1225 1230

Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val
1235 1240 1245

Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr
1250 1255 1260

Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys
1265 1270 1275 1280

Asp Leu Gly Asn Ala
1285

<210> 1395

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

| | | | |
|---|----|----|----|
| 1 | 5 | 10 | 15 |
| Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu | | | |
| 20 | 25 | 30 | |
| Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe | | | |
| 35 | 40 | 45 | |
| Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp | | | |
| 50 | 55 | 60 | |
| Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu | | | |
| 65 | 70 | 75 | |

<210> 1396
 <211> 920
 <212> PRT
 <213> Homo sapiens

| |
|---|
| <400> 1396 |
| Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly |
| 1 5 10 15 |
| Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly |
| 20 25 30 |
| Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val |
| 35 40 45 |
| Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly |
| 50 55 60 |
| Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu |
| 65 70 75 80 |
| Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu |
| 85 90 95 |
| Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val |
| 100 105 110 |
| Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala |
| 115 120 125 |
| Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu |
| 130 135 140 |
| Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu |
| 145 150 155 160 |

1464

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Leu | Leu | Gln | Asp | Pro | Ala | Tyr | Leu | Pro | Glu | Glu | Leu | Ser | Ala | 165 | 170 | 175 |
| Leu | His | Ser | Trp | Phe | Gln | Thr | Leu | Ser | Thr | Gln | Glu | Pro | Cys | Gln | Arg | 180 | 185 | 190 |
| Ala | Ala | Glu | Thr | Val | Leu | Lys | Gln | Gln | Gly | Val | Leu | Ala | Leu | Arg | Pro | 195 | 200 | 205 |
| Tyr | Leu | Gln | Lys | Gln | Pro | Gln | Pro | Ser | Pro | Ala | Glu | Gly | Arg | Ala | Val | 210 | 215 | 220 |
| Thr | Asn | Glu | Pro | Glu | Glu | Glu | Leu | Ala | Thr | Leu | Ser | Glu | Glu | Glu | | 225 | 230 | 235 |
| Ile | Ala | Met | Ala | Val | Thr | Ala | Trp | Glu | Lys | Gly | Leu | Glu | Ser | Leu | Pro | 245 | 250 | 255 |
| Pro | Leu | Arg | Pro | Gln | Gln | Asn | Pro | Val | Leu | Pro | Val | Ala | Gly | Glu | Arg | 260 | 265 | 270 |
| Asn | Val | Leu | Ile | Thr | Ser | Ala | Leu | Pro | Tyr | Val | Asn | Asn | Val | Pro | His | 275 | 280 | 285 |
| Leu | Gly | Asn | Ile | Ile | Gly | Cys | Val | Leu | Ser | Ala | Asp | Val | Phe | Ala | Arg | 290 | 295 | 300 |
| Tyr | Ser | Arg | Leu | Arg | Gln | Trp | Asn | Thr | Leu | Tyr | Leu | Cys | Gly | Thr | Asp | 305 | 310 | 315 |
| Glu | Tyr | Gly | Thr | Ala | Thr | Glu | Thr | Lys | Ala | Leu | Glu | Glu | Gly | Leu | Thr | 325 | 330 | 335 |
| Pro | Gln | Glu | Ile | Cys | Asp | Lys | Tyr | His | Ile | Ile | His | Ala | Asp | Ile | Tyr | 340 | 345 | 350 |
| Arg | Trp | Phe | Asn | Ile | Ser | Phe | Asp | Ile | Phe | Gly | Arg | Thr | Thr | Thr | Pro | 355 | 360 | 365 |
| Gln | Gln | Thr | Lys | Ile | Thr | Gln | Asp | Ile | Phe | Gln | Gln | Leu | Leu | Lys | Arg | 370 | 375 | 380 |
| Gly | Phe | Val | Leu | Gln | Asp | Thr | Val | Glu | Gln | Leu | Arg | Cys | Glu | His | Cys | 385 | 390 | 395 |
| Ala | Arg | Phe | Leu | Ala | Asp | Arg | Phe | Val | Glu | Gly | Val | Cys | Pro | Phe | Cys | 405 | 410 | 415 |
| Gly | Tyr | Glu | Glu | Ala | Arg | Gly | Asp | Gln | Cys | Asp | Lys | Cys | Gly | Lys | Leu | 420 | 425 | 430 |

1465

Ile Asn Ala Val Glu Leu Lys Lys Pro Gln Cys Lys Val Cys Arg Ser
 435 440 445

Cys Pro Val Val Gln Ser Ser Gln His Leu Phe Leu Asp Leu Pro Lys
 450 455 460

Leu Glu Lys Arg Leu Glu Glu Trp Leu Gly Arg Thr Leu Pro Gly Ser
 465 470 475 480

Asp Trp Thr Pro Asn Ala Gln Phe Ile Thr Arg Ser Trp Leu Arg Asp
 485 490 495

Gly Leu Lys Pro Arg Cys Ile Thr Arg Asp Leu Lys Trp Gly Thr Pro
 500 505 510

Val Pro Leu Glu Gly Phe Glu Asp Lys Val Phe Tyr Val Trp Phe Asp
 515 520 525

Ala Thr Ile Gly Tyr Leu Ser Ile Thr Ala Asn Tyr Thr Asp Gln Trp
 530 535 540

Glu Arg Trp Trp Lys Asn Pro Glu Gln Val Asp Leu Tyr Gln Phe Met
 545 550 555 560

Ala Lys Asp Asn Val Pro Phe His Ser Leu Val Phe Pro Cys Ser Ala
 565 570 575

Leu Gly Ala Glu Asp Asn Tyr Thr Leu Val Ser His Leu Ile Ala Thr
 580 585 590

Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser Arg Gly Val
 595 600 605

Gly Val Phe Gly Asp Met Ala Gln Asp Thr Gly Ile Pro Ala Asp Ile
 610 615 620

Trp Arg Phe Tyr Leu Leu Tyr Ile Arg Pro Glu Gly Gln Asp Ser Ala
 625 630 635 640

Phe Ser Trp Thr Asp Leu Leu Leu Lys Asn Asn Ser Glu Leu Leu Asn
 645 650 655

Asn Leu Gly Asn Phe Ile Asn Arg Ala Gly Met Phe Val Ser Lys Phe
 660 665 670

Phe Gly Gly Tyr Val Pro Glu Met Val Leu Thr Pro Asp Asp Gln Arg
 675 680 685

Leu Leu Ala His Val Thr Leu Glu Leu Gln His Tyr His Gln Leu Leu
 690 695 700

1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser
705 710 715 720

Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile
725 730 735

Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu
740 745 750

Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met
755 760 765

Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro
770 775 780

Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly
785 790 795 800

His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp
805 810 815

Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr
820 825 830

Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln
835 840 845

Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val
850 855 860

Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu
865 870 875 880

Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly
885 890 895

Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp
900 905 910

Leu Ile Glu Ser His Phe Asn Arg
915 920

<210> 1397

<211> 476

<212> PRT

<213> Homo sapiens

<220>

1467

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1397

Lys Met Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln
 1 5 10 15
 Asp Arg Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val
 20 25 30
 Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val
 35 40 45
 Ala Ala Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp
 50 55 60
 Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser Glu Ile Pro Leu Pro Pro
 65 70 75 80
 Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys
 85 90 95
 Ile Tyr Gly His Leu Asp Val Gln Pro Ala Ala Leu Glu Asp Gly Trp
 100 105 110
 Asp Ser Glu Pro Phe Thr Leu Val Glu Arg Asp Gly Lys Leu Xaa Gly
 115 120 125
 Arg Gly Ser Thr Asp Asp Lys Gly Pro Val Ala Gly Trp Ile Asn Ala
 130 135 140
 Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu Ile Pro Val Asn Val Arg
 145 150 155 160
 Phe Cys Leu Glu Gly Met Glu Glu Ser Gly Ser Glu Gly Leu Asp Glu
 165 170 175
 Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe Lys Asp Val Asp Tyr Val
 180 185 190
 Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys Lys Lys Pro Cys Ile Thr
 195 200 205
 Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe Ile Glu Val Glu Cys Ser
 210 215 220
 Asn Lys Asp Leu His Ser Gly Val Tyr Gly Gly Ser Val His Glu Ala
 225 230 235 240
 Met Thr Asp Leu Ile Leu Leu Met Gly Ser Leu Val Asp Lys Arg Gly

1468

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 245 | | 250 | | 255 |
| Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala Val Ala Ala Val Thr Glu | | | | | |
| 260 | | 265 | | 270 | |
| Glu Glu His Lys Leu Tyr Asp Asp Ile Asp Phe Asp Ile Glu Glu Phe | | | | | |
| 275 | | 280 | | 285 | |
| Ala Lys Asp Val Gly Ala Gln Ile Leu Leu His Ser His Lys Lys Asp | | | | | |
| 290 | | 295 | | 300 | |
| Ile Leu Met His Arg Trp Arg Tyr Pro Ser Leu Ser Leu His Gly Ile | | | | | |
| 305 | | 310 | | 315 | 320 |
| Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys Thr Val Ile Pro Arg Lys | | | | | |
| | 325 | | 330 | | 335 |
| Val Val Gly Lys Phe Ser Ile Arg Leu Val Pro Asn Met Thr Pro Glu | | | | | |
| | 340 | | 345 | | 350 |
| Val Val Gly Glu Gln Val Thr Ser Tyr Leu Thr Lys Lys Phe Ala Glu | | | | | |
| | 355 | | 360 | | 365 |
| Leu Arg Ser Pro Asn Glu Phe Lys Val Tyr Met Gly His Gly Gly Lys | | | | | |
| | 370 | | 375 | | 380 |
| Pro Trp Val Ser Asp Phe Ser His Pro His Tyr Leu Ala Gly Arg Arg | | | | | |
| 385 | | 390 | | 395 | 400 |
| Ala Met Lys Thr Val Phe Gly Val Glu Pro Asp Leu Thr Arg Glu Gly | | | | | |
| | 405 | | 410 | | 415 |
| Gly Ser Ile Pro Val Thr Leu Thr Phe Gln Glu Ala Thr Gly Lys Asn | | | | | |
| | 420 | | 425 | | 430 |
| Val Met Leu Leu Pro Val Gly Ser Ala Asp Asp Gly Ala His Ser Gln | | | | | |
| | 435 | | 440 | | 445 |
| Asn Glu Lys Leu Asn Arg Tyr Asn Tyr Ile Glu Gly Thr Lys Met Leu | | | | | |
| | 450 | | 455 | | 460 |
| Ala Ala Tyr Leu Tyr Glu Val Ser Gln Leu Lys Asp | | | | | |
| 465 | | 470 | | 475 | |

<210> 1398

<211> 187

<212> PRT

<213> Homo sapiens

1469

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val
 1 5 10 15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val
 20 25 30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala
 35 40 45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser
 50 55 60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp
 65 70 75 80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp
 85 90 95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu
 100 105 110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg
 115 120 125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu
 130 135 140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln
 145 150 155 160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr
 165 170 175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu
 180 185

<210> 1399

<211> 376

<212> PRT

<213> Homo sapiens

<400> 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1470

| 1 | 5 | 10 | 15 |
|---|-----|-----|-----|
| Leu Ala Pro Ala Asn Ala Val Ala Gly Leu Leu Pro Gly Gly Gly Leu | 20 | 25 | 30 |
| Leu Pro Thr Pro Asn Pro Leu Thr Gln Ile Gly Ala Val Pro Leu Ala | 35 | 40 | 45 |
| Ala Leu Gly Ala Pro Thr Leu Asp Pro Ala Leu Ala Ala Leu Gly Leu | 50 | 55 | 60 |
| Pro Gly Ala Asn Leu Asn Ser Gln Ser Leu Ala Ala Asp Gln Leu Leu | 65 | 70 | 75 |
| Lys Leu Met Ser Thr Val Asp Pro Lys Leu Asn His Val Ala Ala Gly | 85 | 90 | 95 |
| Leu Val Ser Pro Ser Leu Lys Ser Asp Thr Ser Ser Lys Glu Ile Glu | 100 | 105 | 110 |
| Glu Ala Met Lys Arg Val Arg Glu Ala Gln Ser Leu Ile Ser Ala Ala | 115 | 120 | 125 |
| Ile Glu Pro Asp Lys Lys Glu Glu Lys Arg Arg His Ser Arg Ser Arg | 130 | 135 | 140 |
| Ser Arg Ser Arg Arg Arg Arg Thr Pro Ser Ser Ser Arg His Arg Arg | 145 | 150 | 155 |
| Ser Arg Ser Arg Ser Arg Arg Arg Ser His Ser Lys Ser Arg Ser Arg | 165 | 170 | 175 |
| Arg Arg Ser Lys Ser Pro Arg Arg Arg Arg Ser His Ser Arg Glu Arg | 180 | 185 | 190 |
| Gly Arg Arg Ser Arg Ser Thr Ser Lys Thr Arg Asp Lys Lys Lys Glu | 195 | 200 | 205 |
| Asp Lys Glu Lys Lys Arg Ser Lys Thr Pro Pro Lys Ser Tyr Ser Thr | 210 | 215 | 220 |
| Ala Arg Arg Ser Arg Ser Ala Ser Arg Glu Arg Arg Arg Arg Ser | 225 | 230 | 235 |
| Arg Ser Gly Thr Arg Ser Pro Lys Lys Pro Arg Ser Pro Lys Arg Lys | 245 | 250 | 255 |
| Leu Ser Arg Ser Pro Ser Pro Arg Arg His Lys Lys Glu Lys Lys Lys | 260 | 265 | 270 |
| Asp Lys Asp Lys Glu Arg Ser Arg Asp Glu Arg Glu Arg Ser Thr Ser | | | |

1471

| | | | | |
|---|-----|-----|-----|-----|
| 275 | | 280 | | 285 |
| Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser | | | | |
| 290 | | 295 | | 300 |
| Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu | | | | |
| 305 | | 310 | | 320 |
| Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro | | | | |
| | 325 | | 330 | 335 |
| Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly | | | | |
| | 340 | | 345 | 350 |
| Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His | | | | |
| | 355 | | 360 | 365 |
| Glu Glu Asp Met Asp Met Ser Asp | | | | |
| 370 | | 375 | | |

<210> 1400

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1400

| | | | | |
|---|----|----|----|----|
| Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu | | | | |
| 1 | | 5 | | 10 |
| | | | | 15 |
| Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr | | | | |
| | 20 | | 25 | 30 |
| Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala | | | | |
| | 35 | | 40 | 45 |
| Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg | | | | |
| | 50 | | 55 | 60 |
| Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu | | | | |
| | 65 | | 70 | 75 |
| | | | | 80 |
| Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu | | | | |
| | | 85 | 90 | 95 |

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val
100 105 110

<210> 1401
<211> 69
<212> PRT
<213> Homo sapiens

<400> 1401
Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln
1 5 10 15
Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val
20 25 30
Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln
35 40 45
Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys
50 55 60
Lys Glu Glu Pro Lys
65

<210> 1402
<211> 177
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (162)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids

1473

<400> 1402

Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln
 1 5 10 15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu
 20 25 30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser
 35 40 45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala
 50 55 60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn
 65 70 75 80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr
 85 90 95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr
 100 105 110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val
 115 120 125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg
 130 135 140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val
 145 150 155 160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu
 165 170 175

Leu

<210> 1403

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1403

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu
 1 5 10 15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu
 20 25 30

[illegible]

```
<210> 1404
<211> 251
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```

<400> 1404
Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg
 1              5              10              15

Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser
      20              25              30

Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp
      35              40              45

Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys
      50              55              60

Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg
 65              70              75              80

Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn
      85              90              95

Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala Ser Lys Ile
      100              105              110

```


1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe
 115 120 125

Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg
 130 135 140

Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile
 145 150 155 160

Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro
 165 170 175

Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly
 180 185 190

Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu
 195 200 205

Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu
 210 215 220

Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe
 225 230 235 240

Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala
 245 250

<210> 1405

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val
 1 5 10 15

Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys
 20 25 30

Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu
 35 40 45

Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr
 50 55 60

Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His
 65 70 75 80

Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

| | 85 | | 90 | | 95 | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Phe | Leu | Ser | Phe | Cys | Asn | Leu | Arg | His | Met | Phe | Gln | Arg | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ile | Phe | Val | Trp | Ser | Ser | Asp | Leu | Gly | Asp | His | Ser | His | Asn | |
| | | | 115 | | | | | 120 | | | | | 125 | | |

<210> 1406

<211> 230

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (192)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1477

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (218)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1406

Ala Glu Arg Pro Leu Gln Val Pro Arg Ser Ala Gly Glu Ala Ala Pro
 1 5 10 15

His Ser Arg Arg Pro Pro Gly Leu Leu Pro His Ala Pro Arg Ala Ala
 20 25 30

Ser Ala Gln Leu Glu Glu Arg Arg Arg Asp Pro His Pro Gly Met Thr
 35 40 45

Leu Gln Glu Gly Asp Cys Arg Gly Ser Gln Thr Val Ser Leu Thr Met
 50 55 60

Gly Thr Ala Asp Ser Asp Glu Met Ala Pro Glu Ala Pro Gln His Thr
 65 70 75 80

His Ile Asp Val His Ile His Gln Glu Xaa Ala Leu Ala Lys Leu Leu
 85 90 95

Leu Thr Cys Cys Ser Ala Leu Arg Pro Arg Ala Thr Gln Ala Arg Xaa
 100 105 110

Ser Ser Arg Leu Leu Xaa Ala Ser Trp Val Met Gln Ile Val Leu Gly
 115 120 125

Ile Leu Ser Ala Val Leu Gly Gly Phe Phe Tyr Ile Arg Asp Tyr Thr
 130 135 140

Leu Leu Val Thr Ser Gly Ala Ala Ser Gly Gln Gly Leu Trp Leu Cys
 145 150 155 160

Cys Trp Ser Cys Cys Leu His Leu Xaa Glu Thr Gly Trp Tyr Ile Leu
 165 170 175

Gly Pro Ala Glu Asp Ser Ala Asn Ala Gly Lys Leu Ser Xaa Gln Xaa
 180 185 190

Ser Xaa Ala Ser Asn Phe Gly Asn Glu Glu Phe Arg Tyr Gly Leu Leu
 195 200 205

Leu Ile Thr Thr Ser Gly Trp Pro Xaa Xaa Gln Val Arg Val Asp Trp
 210 215 220

1478

Asn Thr Ser Ser Pro Gln
225 230

<210> 1407
<211> 79
<212> PRT
<213> Homo sapiens

<400> 1407
Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser
1 5 10 15
Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn
20 25 30
Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val
35 40 45
Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr
50 55 60
Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr
65 70 75

<210> 1408
<211> 289
<212> PRT
<213> Homo sapiens

<400> 1408
Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu
1 5 10 15
Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala
20 25 30
Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Gly
35 40 45
Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys
50 55 60
Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys
65 70 75 80
Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

| 85 | | | | | 90 | | | | | 95 | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Lys | Gln | Asp | Glu | Phe | Lys | Arg | Leu | Ala | Glu | Asn | Ser | Ala | Ser | Ser | Asp | |
| 100 | | | | | 105 | | | | | 110 | | | | | | |
| Asp | Leu | Leu | Val | Ala | Glu | Val | Gly | Ile | Ser | Asp | Tyr | Gly | Asp | Lys | Leu | |
| 115 | | | | | 120 | | | | | 125 | | | | | | |
| Asn | Met | Glu | Leu | Ser | Glu | Lys | Tyr | Lys | Leu | Asp | Lys | Glu | Ser | Tyr | Pro | |
| 130 | | | | | 135 | | | | | 140 | | | | | | |
| Val | Phe | Tyr | Leu | Phe | Arg | Asp | Gly | Asp | Phe | Glu | Asn | Pro | Val | Pro | Tyr | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Thr | Gly | Ala | Val | Lys | Val | Gly | Ala | Ile | Gln | Arg | Trp | Leu | Lys | Gly | Gln | |
| 165 | | | | | 170 | | | | | 175 | | | | | | |
| Gly | Val | Tyr | Leu | Gly | Met | Pro | Gly | Cys | Leu | Pro | Val | Tyr | Asp | Ala | Leu | |
| 180 | | | | | 185 | | | | | 190 | | | | | | |
| Ala | Gly | Glu | Phe | Ile | Arg | Ala | Ser | Gly | Val | Glu | Ala | Arg | Gln | Ala | Leu | |
| 195 | | | | | 200 | | | | | 205 | | | | | | |
| Leu | Lys | Gln | Gly | Gln | Asp | Asn | Leu | Ser | Ser | Val | Lys | Glu | Thr | Gln | Lys | |
| 210 | | | | | 215 | | | | | 220 | | | | | | |
| Lys | Trp | Ala | Glu | Gln | Tyr | Leu | Lys | Ile | Met | Gly | Lys | Ile | Leu | Asp | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Gly | Glu | Asp | Phe | Pro | Ala | Ser | Glu | Met | Thr | Arg | Ile | Ala | Arg | Leu | Ile | |
| 245 | | | | | 250 | | | | | 255 | | | | | | |
| Glu | Lys | Asn | Lys | Met | Ser | Asp | Gly | Lys | Lys | Glu | Glu | Leu | Gln | Lys | Ser | |
| 260 | | | | | 265 | | | | | 270 | | | | | | |
| Leu | Asn | Ile | Leu | Thr | Ala | Phe | Gln | Lys | Lys | Gly | Ala | Glu | Lys | Glu | Glu | |
| 275 | | | | | 280 | | | | | 285 | | | | | | |

Leu

<210> 1409

<211> 488

<212> PRT

<213> Homo sapiens

<400> 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly

1

5

10

15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn
 20 25 30

Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser
 35 40 45

Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser
 50 55 60

Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val
 65 70 75 80

Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu
 85 90 95

Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val
 100 105 110

Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp
 115 120 125

Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro
 130 135 140

Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser
 145 150 155 160

Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser
 165 170 175

Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg
 180 185 190

Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys
 195 200 205

His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys
 210 215 220

Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg
 225 230 235 240

Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro
 245 250 255

Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val
 260 265 270

Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe
 275 280 285

1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser
290 295 300

Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala
305 310 315 320

Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu
325 330 335

Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala
340 345 350

Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly
355 360 365

Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val
370 375 380

Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser
385 390 395 400

Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro
405 410 415

Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn
420 425 430

Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser
435 440 445

Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln
450 455 460

Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys
465 470 475 480

Ala Ala Gln Lys Lys Leu Lys Lys
485

<210> 1410

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

1482

<400> 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro
 1 5 10 15
 Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys
 20 25 30
 Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe
 35 40 45
 Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe
 50 55 60

<210> 1411

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser
 1 5 10 15
 Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys
 20 25 30
 Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys
 35 40 45
 Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys
 50 55 60
 Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys
 65 70 75 80
 Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln
 85 90 95
 Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala
 100 105 110
 Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn
 115 120 125

Gly

1483

<210> 1412

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1412

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu
 1 5 10 15

Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly
 20 25 30

Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp
 35 40 45

Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro
 50 55 60

His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser
 65 70 75 80

Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp
 85 90 95

Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu
 100 105 110

Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg
 115 120 125

Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu
 130 135 140

Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro
 145 150 155 160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu
 165 170 175

Asp

<210> 1413

<211> 112

<212> PRT

<213> Homo sapiens

1484

<400> 1413

```

Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg
 1           5           10           15

Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn
          20           25           30

Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met
      35           40           45

Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp
 50           55           60

Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser
 65           70           75           80

Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala
          85           90           95

Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp
      100           105           110

```

<210> 1414

<211> 186

<212> PRT

<213> Homo sapiens

<400> 1414

```

Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu
 1           5           10           15

Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu
      20           25           30

Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp
      35           40           45

Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys
      50           55           60

Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu
      65           70           75           80

Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr
          85           90           95

```

1485

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr
 100 105 110
 Gly Trp Arg Cys Arg Ala Arg Ala Ala Ala Ser Arg Arg Phe Pro Gly
 115 120 125
 Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr
 130 135 140
 Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln
 145 150 155 160
 Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe
 165 170 175
 Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe
 180 185

<210> 1415

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1415

Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser
 1 5 10 15
 Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys
 20 25 30
 Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr
 35 40 45
 Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr
 50 55 60
 Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly
 65 70 75 80

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His
 85 90 95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu
 100 105

<210> 1416

<211> 621

<212> PRT

<213> Homo sapiens

<400> 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu
 1 5 10 15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu
 20 25 30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys
 35 40 45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly
 50 55 60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr
 65 70 75 80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser
 85 90 95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys
 100 105 110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro
 115 120 125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser
 130 135 140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu
 145 150 155 160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly
 165 170 175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys
 180 185 190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr
 195 200 205

Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr
 210 215 220

Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg
 225 230 235 240

Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys
 245 250 255

Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu
 260 265 270

His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys
 275 280 285

Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala
 290 295 300

His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp
 305 310 315 320

Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro
 325 330 335

Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala
 340 345 350

Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His
 355 360 365

Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp
 370 375 380

Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys
 385 390 395 400

Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys
 405 410 415

Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys
 420 425 430

Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser
 435 440 445

Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val
 465 470 475 480

Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln
 485 490 495

Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala
 500 505 510

Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val
 515 520 525

Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val
 530 535 540

Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
 545 550 555 560

Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln
 565 570 575

Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg
 580 585 590

Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp
 595 600 605

Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu
 610 615 620

<210> 1417

<211> 340

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro
 1 5 10 15

1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly
 20 25 30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg
 35 40 45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln
 50 55 60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro
 65 70 75 80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val
 85 90 95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln
 100 105 110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly
 115 120 125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met
 130 135 140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu
 145 150 155 160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu
 165 170 175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile
 180 185 190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala
 195 200 205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp
 210 215 220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys
 225 230 235 240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp
 245 250 255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile
 260 265 270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr
 275 280 285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe
 290 295 300
 Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn
 305 310 315 320
 Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp
 325 330 335
 Val Glu Asp Tyr
 340

<210> 1418
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 1418
 Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro
 1 5 10 15
 Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser
 20 25 30
 Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu
 35 40 45
 Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Leu Ser Ala
 50 55 60
 Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser
 65 70 75 80
 Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu
 85 90 95
 Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu
 100 105 110
 Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile
 115 120 125
 Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro
 130 135 140
 Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala
 145 150 155 160
 Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn | | | | | |
| | 180 | | 185 | | 190 |
| Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys | | | | | |
| | 195 | | 200 | | 205 |
| Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly | | | | | |
| | 210 | | 215 | | 220 |
| Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala | | | | | |
| | 225 | | 230 | | 235 |

<210> 1419
 <211> 86
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | |
|---|--|--|----|--|--|--|----|--|--|--|--|--|----|----|
| <400> 1419 | | | | | | | | | | | | | | |
| Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala | | | | | | | | | | | | | | |
| 1 | | | 5 | | | | 10 | | | | | | 15 | |
| Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg | | | | | | | | | | | | | | |
| | | | 20 | | | | 25 | | | | | | 30 | |
| Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly | | | | | | | | | | | | | | |
| | | | 35 | | | | 40 | | | | | | 45 | |
| Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr | | | | | | | | | | | | | | |
| | | | 50 | | | | 55 | | | | | | 60 | |
| Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro | | | | | | | | | | | | | | |
| | | | 65 | | | | 70 | | | | | | 75 | 80 |
| His Ile Gln Ser Arg Ser | | | | | | | | | | | | | | |
| | | | | | | | 85 | | | | | | | |

<210> 1420
 <211> 351
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | |
|---|--|--|--|--|---|--|--|--|----|--|--|--|----|--|
| <400> 1420 | | | | | | | | | | | | | | |
| Thr Trp Cys Thr Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg | | | | | | | | | | | | | | |
| 1 | | | | | 5 | | | | 10 | | | | 15 | |

1492

Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro
 20 25 30
 Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser
 35 40 45
 Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr
 50 55 60
 Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile
 65 70 75 80
 Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala
 85 90 95
 Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu
 100 105 110
 Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp
 115 120 125
 Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr
 130 135 140
 Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe
 145 150 155 160
 Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met
 165 170 175
 Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro
 180 185 190
 Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala
 195 200 205
 Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala
 210 215 220
 Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met
 225 230 235 240
 Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val
 245 250 255
 Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro
 260 265 270
 Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly
 275 280 285

1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys
 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly
 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1494

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Arg | Ser | Thr | Leu | Val | Asp | Pro | Lys | Asn | Ser | Ala | Gln | Glu | Arg | 1 | 5 | 10 | 15 |
| Arg | Ala | Leu | Gly | Pro | Leu | Pro | Pro | Cys | Ser | Phe | Ala | Leu | Gln | Leu | Gly | 20 | 25 | 30 | |
| Met | Ala | Gly | Tyr | Leu | Arg | Val | Val | Arg | Ser | Leu | Cys | Arg | Ala | Ser | Gly | 35 | 40 | 45 | |
| Ser | Arg | Pro | Ala | Trp | Ala | Pro | Ala | Ala | Leu | Thr | Ala | Pro | Thr | Ser | Gln | 50 | 55 | 60 | |
| Glu | Gln | Pro | Arg | Arg | His | Tyr | Ala | Asp | Lys | Arg | Ile | Lys | Val | Ala | Lys | 65 | 70 | 75 | 80 |
| Pro | Val | Val | Glu | Met | Asp | Gly | Asp | Glu | Met | Thr | Arg | Ile | Ile | Trp | Gln | 85 | 90 | 95 | |
| Phe | Ile | Lys | Glu | Lys | Leu | Ile | Leu | Pro | His | Val | Asp | Ile | Gln | Leu | Lys | 100 | 105 | 110 | |
| Tyr | Phe | Asp | Leu | Gly | Leu | Pro | Asn | Arg | Asp | Gln | Thr | Asp | Asp | Gln | Val | 115 | 120 | 125 | |
| Thr | Ile | Asp | Ser | Ala | Leu | Ala | Thr | Gln | Lys | Tyr | Ser | Val | Ala | Val | Lys | 130 | 135 | 140 | |
| Cys | Ala | Thr | Ile | Thr | Pro | Asp | Glu | Ala | Arg | Val | Glu | Glu | Phe | Lys | Leu | 145 | 150 | 155 | 160 |
| Lys | Lys | Met | Trp | Lys | Ser | Pro | Asn | Gly | Thr | Ile | Arg | Asn | Ile | Leu | Gly | 165 | 170 | 175 | |
| Gly | Thr | Val | Phe | Arg | Glu | Pro | Ile | Ile | Cys | Lys | Asn | Ile | Pro | Arg | Leu | 180 | 185 | 190 | |
| Val | Pro | Gly | Trp | Thr | Lys | Pro | Ile | Thr | Ile | Gly | Arg | His | Ala | His | Gly | 195 | 200 | 205 | |
| Asp | Gln | Tyr | Lys | Ala | Thr | Asp | Phe | Val | Ala | Asp | Arg | Ala | Gly | Thr | Phe | 210 | 215 | 220 | |
| Lys | Met | Val | Phe | Thr | Pro | Lys | Asp | Gly | Ser | Gly | Val | Lys | Glu | Trp | Glu | 225 | 230 | 235 | 240 |
| Val | Tyr | Asn | Phe | Pro | Ala | Gly | Gly | Val | Gly | Met | Gly | Met | Tyr | Asn | Thr | 245 | 250 | 255 | |
| Asp | Glu | Ser | Ile | Ser | Gly | Phe | Ala | His | Ser | Cys | Phe | Gln | Tyr | Ala | Ile | 260 | 265 | 270 | |

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys
 275 280 285
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys
 290 295 300
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg
 305 310 315 320
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe
 325 330 335
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu
 340 345 350
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys
 355 360 365
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr
 370 375 380
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro
 385 390 395 400
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys
 405 410 415
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys
 420 425 430
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala
 435 440 445
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu
 450 455 460
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala
 465 470 475 480
 Leu Gly Arg Gln

<210> 1423

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1496

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1423

Val Arg Ile Pro Gly Ser Thr His Ala Ser Gly Gly Gly Asp Gly Asp
 1 5 10 15

Met Glu Ser Gly Ala Tyr Gly Ala Ala Lys Ala Gly Gly Ser Phe Asp
 20 25 30

Leu Arg Arg Phe Leu Thr Gln Pro Gln Val Val Ala Arg Ala Val Cys
 35 40 45

Leu Val Phe Ala Leu Ile Val Phe Ser Cys Ile Tyr Gly Glu Gly Tyr
 50 55 60

Ser Asn Ala His Glu Ser Lys Gln Met Tyr Cys Val Phe Asn Arg Asn
 65 70 75 80

Glu Asp Ala Cys Arg Tyr Gly Ser Ala Ile Gly Val Leu Ala Phe Leu
 85 90 95

Ala Ser Ala Phe Phe Leu Val Val Asp Ala Tyr Phe Pro Gln Ile Ser
 100 105 110

Asn Ala Thr Asp Arg Lys Tyr Leu Val Ile Gly Asp Leu Leu Phe Ser
 115 120 125

Ala Leu Trp Thr Phe Leu Trp Phe Val Gly Phe Cys Phe Leu Thr Asn
 130 135 140

Gln Trp Ala Val Thr Asn Pro Lys Xaa Val Leu Val Gly Ala Asp Ser
 145 150 155 160

Val Arg Ala Ala Ile Thr Phe Ser Phe Phe Ser Ile Phe Ser Trp Gly
 165 170 175

Val Leu Ala Ser Leu Ala Tyr Gln Arg Tyr Lys Ala Gly Val Asp Asp
 180 185 190

Phe Ile Gln Asn Tyr Val Asp Pro Thr Pro Asp Pro Asn Thr Ala Tyr
 195 200 205

Ala Ser Tyr Pro Gly Ala Ser Val Asp Asn Tyr Gln Gln Pro Pro Phe
 210 215 220

Thr Gln Asn Ala Glu Thr Thr Glu Gly Tyr Gln Pro Pro Pro Val Tyr
 225 230 235 240

1497

<210> 1424

<211> 244

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (221)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1424

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Arg | Arg | Gln | Ser | Ser | Gly | Asn | Leu | Thr | Met | Ala | Trp | Thr | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Leu | Pro | Leu | Leu | Thr | Phe | Cys | Thr | Val | Ser | Glu | Ala | Ser | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Thr | Gln | Pro | Pro | Ser | Val | Ser | Val | Ser | Pro | Gly | Gln | Thr | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Thr | Cys | Ser | Gly | Asp | Ala | Leu | Pro | Xaa | Lys | Tyr | Xaa | Tyr | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gln | Gln | Lys | Ser | Gly | Gln | Ala | Pro | Val | Leu | Val | Ile | Tyr | Glu | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Arg | Pro | Ser | Ala | Ile | Pro | Glu | Arg | Phe | Ser | Ala | Ser | Ser | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Met | Ala | Thr | Leu | Thr | Ile | Ser | Gly | Ala | Gln | Val | Glu | Asp | Glu |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Tyr | Tyr | Cys | Tyr | Ser | Thr | Asp | Ser | Ser | Ser | Tyr | Tyr | Arg | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Gly | Gly | Thr | Lys | Leu | Thr | Val | Leu | Gly | Gln | Pro | Lys | Ala | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro
225 230 235 240

Thr Glu Cys Ser

<210> 1425

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (159)

1499

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1425

Xaa Val Arg Val Gln Thr Arg Gly Ser Ala Asp Pro Ala Gln Leu Arg
 1 5 10 15

Arg His Pro Gly Tyr Lys Arg Thr Ala Ser Ala Thr Leu Ser Asp Pro
 20 25 30

Ala Ala Ala Ala Met Gln Pro Ser Ser Leu Leu Pro Leu Ala Leu Cys
 35 40 45

Leu Leu Ala Ala Pro Ala Ser Ala Leu Val Arg Ile Pro Leu His Lys
 50 55 60

Phe Thr Ser Ile Arg Arg Thr Met Ser Glu Val Gly Gly Ser Val Glu
 65 70 75 80

Asp Leu Ile Ala Lys Gly Pro Val Ser Lys Tyr Ser Gln Ala Val Pro
 85 90 95

Ala Val Thr Glu Gly Pro Ile Pro Glu Val Leu Lys Asn Tyr Met Asp
 100 105 110

Ala Gln Xaa Tyr Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Cys Phe
 115 120 125

Thr Val Val Phe Asp Thr Gly Xaa Xaa Asn Leu Trp Val Pro Ser Ile
 130 135 140

His Cys Lys Leu Leu Asp Ile Ala Cys Trp Ile His His Lys Xaa Asn
 145 150 155 160

Ser Asp Lys Ser Ser Asn Tyr Val Lys Asn Gly Asn Ser
 165 170

<210> 1426

<211> 351

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1426

Ile Arg His Glu Ile Leu Trp Leu Leu Cys Ser His Arg Pro Ala Pro
 1 5 10 15

1500

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Pro | Pro | Thr | His | Asn | Ala | His | Asn | Trp | Arg | Leu | Gly | Gln | Ala | 20 | 25 | 30 | |
| Pro | Ala | Xaa | Trp | Tyr | Asn | Asp | Thr | Tyr | Pro | Leu | Ser | Pro | Pro | Gln | Arg | 35 | 40 | 45 | |
| Thr | Pro | Ala | Gly | Ile | Arg | Tyr | Arg | Ile | Ala | Val | Ile | Ala | Asp | Leu | Asp | 50 | 55 | 60 | |
| Thr | Glu | Ser | Arg | Ala | Gln | Glu | Glu | Asn | Thr | Trp | Phe | Ser | Tyr | Leu | Lys | 65 | 70 | 75 | 80 |
| Lys | Gly | Tyr | Leu | Thr | Leu | Ser | Asp | Ser | Gly | Asp | Lys | Val | Ala | Val | Glu | 85 | 90 | 95 | |
| Trp | Asp | Lys | Asp | His | Gly | Val | Leu | Glu | Ser | His | Leu | Ala | Glu | Lys | Gly | 100 | 105 | 110 | |
| Arg | Gly | Met | Glu | Leu | Ser | Asp | Leu | Ile | Val | Phe | Asn | Gly | Lys | Leu | Tyr | 115 | 120 | 125 | |
| Ser | Val | Asp | Asp | Arg | Thr | Gly | Val | Val | Tyr | Gln | Ile | Glu | Gly | Ser | Lys | 130 | 135 | 140 | |
| Ala | Val | Pro | Trp | Val | Ile | Leu | Ser | Asp | Gly | Asp | Gly | Thr | Val | Glu | Lys | 145 | 150 | 155 | 160 |
| Gly | Phe | Lys | Ala | Glu | Trp | Leu | Ala | Val | Lys | Asp | Glu | Arg | Leu | Tyr | Val | 165 | 170 | 175 | |
| Gly | Gly | Leu | Gly | Lys | Glu | Trp | Thr | Thr | Thr | Thr | Gly | Asp | Val | Val | Asn | 180 | 185 | 190 | |
| Glu | Asn | Pro | Glu | Trp | Val | Lys | Val | Val | Gly | Tyr | Lys | Gly | Ser | Val | Asp | 195 | 200 | 205 | |
| His | Glu | Asn | Trp | Val | Ser | Asn | Tyr | Asn | Ala | Leu | Arg | Ala | Ala | Ala | Gly | 210 | 215 | 220 | |
| Ile | Gln | Pro | Pro | Gly | Tyr | Leu | Ile | His | Glu | Ser | Ala | Cys | Trp | Ser | Asp | 225 | 230 | 235 | 240 |
| Thr | Leu | Gln | Arg | Trp | Phe | Phe | Leu | Pro | Arg | Arg | Ala | Ser | Gln | Glu | Arg | 245 | 250 | 255 | |
| Tyr | Ser | Glu | Lys | Asp | Asp | Glu | Arg | Lys | Gly | Ala | Asn | Leu | Leu | Leu | Ser | 260 | 265 | 270 | |
| Ala | Ser | Pro | Asp | Phe | Gly | Asp | Ile | Ala | Val | Ser | His | Val | Gly | Ala | Val | 275 | 280 | 285 | |

1501

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp
 290 295 300

Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val
 305 310 315 320

Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro
 325 330 335

Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile
 340 345 350

<210> 1427

<211> 510

<212> PRT

<213> Homo sapiens

<400> 1427

Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala
 1 5 10 15

Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu
 20 25 30

Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser
 35 40 45

Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg
 50 55 60

Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg
 65 70 75 80

Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val
 85 90 95

Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser
 100 105 110

Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu
 115 120 125

Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg
 130 135 140

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser
 145 150 155 160

1502

Glu Phe Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile
 165 170 175

Gly Gln Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly
 180 185 190

Pro Val Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val
 195 200 205

Pro Pro Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu
 210 215 220

Tyr Gln Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn
 225 230 235 240

Arg Phe Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu
 245 250 255

Glu Val Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Val Val
 260 265 270

Leu Ser Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg
 275 280 285

Lys Arg Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly
 290 295 300

Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Arg Glu Leu Met
 305 310 315 320

Ser Ser Ile Val His Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly
 325 330 335

Leu Asn Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro
 340 345 350

His Ser Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val
 355 360 365

Ser Asp Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser
 370 375 380

Arg Ala Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His
 385 390 395 400

Ile Leu Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val
 405 410 415

Ala Ala Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr
 420 425 430

1503

Ile Asp Thr Ser Arg Val Ser Leu Arg Ala Pro Gln Glu Phe Met Thr
 435 440 445

Ser His Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro
 450 455 460

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val
 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile
 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr
 500 505 510

<210> 1428

<211> 316

<212> PRT

<213> Homo sapiens

<400> 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu
 1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro
 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Phe Glu Gly Ala Pro Gly
 35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu
 50 55 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro
 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro
 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala
 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr
 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile
 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala

1504

145 150 155 160
 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu
 165 170 175
 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro
 180 185 190
 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp
 195 200 205
 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val
 210 215 220
 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly
 225 230 235 240
 Thr Tyr Leu Pro Gln Ser Tyr Leu Ile His Glu His Met Val Ile Thr
 245 250 255
 Asp Arg Ile Glu Asn Ile Asp His Leu Gly Phe Phe Ile Tyr Arg Leu
 260 265 270
 Cys His Asp Lys Glu Thr Tyr Lys Leu Gln Arg Arg Glu Thr Ile Lys
 275 280 285
 Gly Ile Gln Lys Arg Glu Ala Ser Asn Cys Phe Ala Ile Arg His Phe
 290 295 300
 Glu Asn Lys Phe Ala Val Glu Thr Leu Ile Cys Ser
 305 310 315

<210> 1429

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1429

His Thr Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr
 1 5 10 15
 Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu
 20 25 30
 Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro
 35 40 45
 Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val
 50 55 60

1505

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Lys | Ser | Leu | Leu | Gly | Lys | Asp | Val | Leu | Phe | Leu | Lys | Asp | Cys | 65 | 70 | 75 | 80 |
| Val | Gly | Pro | Glu | Val | Glu | Lys | Ala | Cys | Ala | Asn | Pro | Ala | Ala | Gly | Ser | 85 | 90 | 95 | |
| Val | Ile | Leu | Leu | Glu | Asn | Leu | Arg | Phe | His | Val | Glu | Glu | Glu | Gly | Lys | 100 | 105 | 110 | |
| Gly | Lys | Asp | Ala | Ser | Gly | Asn | Lys | Val | Lys | Ala | Glu | Pro | Ala | Lys | Ile | 115 | 120 | 125 | |
| Glu | Ala | Phe | Arg | Ala | Ser | Leu | Ser | Lys | Leu | Gly | Asp | Val | Tyr | Val | Asn | 130 | 135 | 140 | |
| Asp | Ala | Phe | Gly | Thr | Ala | His | Arg | Ala | His | Ser | Ser | Met | Val | Gly | Val | 145 | 150 | 155 | 160 |
| Asn | Leu | Pro | Gln | Lys | Ala | Gly | Gly | Phe | Leu | Met | Lys | Lys | Glu | Leu | Asn | 165 | 170 | 175 | |
| Tyr | Phe | Ala | Lys | Ala | Leu | Glu | Ser | Pro | Glu | Arg | Pro | Phe | Leu | Ala | Ile | 180 | 185 | 190 | |
| Leu | Gly | Gly | Ala | Lys | Val | Ala | Asp | Lys | Ile | Gln | Leu | Ile | Asn | Asn | Met | 195 | 200 | 205 | |
| Leu | Asp | Lys | Val | Asn | Glu | Met | Ile | Ile | Gly | Gly | Gly | Met | Ala | Phe | Thr | 210 | 215 | 220 | |
| Phe | Leu | Lys | Val | Leu | Asn | Asn | Met | Glu | Ile | Gly | Thr | Ser | Leu | Phe | Asp | 225 | 230 | 235 | 240 |
| Glu | Glu | Gly | Ala | Lys | Ile | Val | Lys | Asp | Leu | Met | Ser | Lys | Ala | Glu | Lys | 245 | 250 | 255 | |
| Asn | Gly | Val | Lys | Ile | Thr | Leu | Pro | Val | Asp | Phe | Val | Thr | Ala | Asp | Lys | 260 | 265 | 270 | |
| Phe | Asp | Glu | Asn | Ala | Lys | Thr | Gly | Gln | Ala | Thr | Val | Ala | Ser | Gly | Ile | 275 | 280 | 285 | |
| Pro | Ala | Gly | Trp | Met | Gly | Leu | Asp | Cys | Gly | Pro | Glu | Ser | Ser | Lys | Lys | 290 | 295 | 300 | |
| Tyr | Ala | Glu | Ala | Val | Thr | Arg | Ala | Lys | Gln | Ile | Val | Trp | Asn | Gly | Pro | 305 | 310 | 315 | 320 |
| Val | Gly | Val | Phe | Glu | Trp | Glu | Ala | Phe | Ala | Arg | Gly | Thr | Lys | Ala | Leu | 325 | 330 | 335 | |

1506

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile
 340 345 350

Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp
 355 360 365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu
 370 375 380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile
 385 390 395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe
 1 5 10 15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu
 20 25 30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu
 35 40 45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg
 50 55 60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val
 65 70 75 80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu
 85 90 95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser
 100 105 110

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly
 115 120 125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130 135 140
 Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu
 145 150 155 160
 Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp
 165 170 175
 Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu
 180 185 190
 Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu
 195 200 205
 Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val
 210 215 220
 Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser
 225 230 235 240
 Ile Gln Arg Ser Xaa Leu Cys Lys Asp
 245

<210> 1431
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 1431
 Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu
 1 5 10 15
 Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu
 20 25 30
 Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg
 35 40 45
 Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp
 50 55 60
 Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu
 65 70 75 80
 Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala
 85 90 95
 Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr
 100 105 110

1508

Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln Gly Met Asn Gly Cys
 115 120 125
 Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly Tyr His Gln His Ala
 130 135 140
 Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp
 145 150 155 160
 Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala
 165 170 175
 Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu
 180 185 190
 Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg
 195 200 205
 Ala Asp Pro Pro Lys Ala His Val Ala His His Pro Ile Ser Asp His
 210 215 220
 Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile
 225 230 235 240
 Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu
 245 250 255
 Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Arg Ser Gly
 260 265 270

<210> 1432

<211> 455

<212> PRT

<213> Homo sapiens

<400> 1432

Ala His Ala Ser Gly Ala Pro Glu Gln Arg Pro Arg Pro Pro Arg Leu
 1 5 10 15
 Leu Arg Arg Asp Leu Glu Arg Lys Thr Pro Ala Arg Arg Pro Ala Leu
 20 25 30
 Ala Ser Leu Pro Thr Gly His Thr Ala Pro Pro Pro Arg Pro Arg Cys
 35 40 45
 Ala Arg Pro Val Arg Cys Thr Pro Ala Cys Trp Arg Leu Arg Arg Arg
 50 55 60

1509

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Pro | Gly | Leu | Leu | Leu | Arg | Ala | Thr | Met | Ser | Ser | Arg | Ile | Ala | 65 | 70 | 75 | 80 |
| Arg | Ala | Leu | Ala | Leu | Val | Val | Thr | Leu | Leu | His | Leu | Thr | Arg | Leu | Ala | 85 | 90 | 95 | |
| Leu | Ser | Thr | Cys | Pro | Ala | Ala | Cys | His | Cys | Pro | Leu | Glu | Ala | Pro | Lys | 100 | 105 | 110 | |
| Cys | Ala | Pro | Gly | Val | Gly | Leu | Val | Arg | Asp | Gly | Cys | Gly | Cys | Cys | Lys | 115 | 120 | 125 | |
| Val | Cys | Ala | Lys | Gln | Leu | Asn | Glu | Asp | Cys | Ser | Lys | Thr | Gln | Pro | Cys | 130 | 135 | 140 | |
| Asp | His | Thr | Lys | Gly | Leu | Glu | Cys | Asn | Phe | Gly | Ala | Ser | Ser | Thr | Ala | 145 | 150 | 155 | 160 |
| Leu | Lys | Gly | Ile | Cys | Arg | Ala | Gln | Ser | Glu | Gly | Arg | Pro | Cys | Glu | Tyr | 165 | 170 | 175 | |
| Asn | Ser | Arg | Ile | Tyr | Gln | Asn | Gly | Glu | Ser | Phe | Gln | Pro | Asn | Cys | Lys | 180 | 185 | 190 | |
| His | Gln | Cys | Thr | Cys | Ile | Asp | Gly | Ala | Val | Gly | Cys | Ile | Pro | Leu | Cys | 195 | 200 | 205 | |
| Pro | Gln | Glu | Leu | Ser | Leu | Pro | Asn | Leu | Gly | Cys | Pro | Asn | Pro | Arg | Leu | 210 | 215 | 220 | |
| Val | Lys | Val | Thr | Gly | Gln | Cys | Cys | Glu | Glu | Trp | Val | Cys | Asp | Glu | Asp | 225 | 230 | 235 | 240 |
| Ser | Ile | Lys | Asp | Pro | Met | Glu | Asp | Gln | Asp | Gly | Leu | Leu | Gly | Lys | Glu | 245 | 250 | 255 | |
| Leu | Gly | Phe | Asp | Ala | Ser | Glu | Val | Glu | Leu | Thr | Arg | Asn | Asn | Glu | Leu | 260 | 265 | 270 | |
| Ile | Ala | Val | Gly | Lys | Gly | Ser | Ser | Leu | Lys | Arg | Leu | Pro | Val | Phe | Gly | 275 | 280 | 285 | |
| Met | Glu | Pro | Arg | Ile | Leu | Tyr | Asn | Pro | Leu | Gln | Gly | Gln | Lys | Cys | Ile | 290 | 295 | 300 | |
| Val | Gln | Thr | Thr | Ser | Trp | Ser | Gln | Cys | Ser | Lys | Thr | Cys | Gly | Thr | Gly | 305 | 310 | 315 | 320 |
| Ile | Ser | Thr | Arg | Val | Thr | Asn | Asp | Asn | Pro | Glu | Cys | Arg | Leu | Val | Lys | 325 | 330 | 335 | |

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser
 340 345 350

Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu
 355 360 365

Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg
 370 375 380

Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln
 385 390 395 400

Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr
 405 410 415

Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn
 420 425 430

Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn
 435 440 445

Asp Ile His Lys Phe Arg Asp
 450 455

<210> 1433

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu
 1 5 10 15

Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala
 20 25 30

Gly Ala Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg
 35 40 45

His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg
 50 55 60

Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly
 65 70 75 80

Glu Phe Glu Gly Arg Gly Pro
 85

1511

<210> 1434

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1434

Val Trp Arg Ala Gly Ala Gly Met Ala Ser Leu Arg Ser Gln His Gly
1 5 10 15
Pro Gly Ala Pro Glu Ser Leu Arg Lys Val Leu Met Pro Ser Ser Met
20 25 30
Gly Leu Leu Leu Ile Leu Tyr Ala Arg Leu Pro Pro Ser Leu Val Gly
35 40 45
Gln Ala Gly Arg Trp Ile Gly Trp Ala Gly Arg Ala Gly Gly Gln Ala
50 55 60
Val Arg Gln Pro Ser Pro Thr Val Leu Ile Asp Gly Val Glu Cys Ser
65 70 75 80
Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val Lys
85 90 95
His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe
100 105 110

<210> 1435

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1435

Gly Ser Gln Asp Ala Arg Arg Gly Ser Gly Leu Gly Val Ser Ser Phe
1 5 10 15
Leu Arg Gly Ser Gly Gly Ser Gly Pro Leu Trp Val Gln His Gly Lys
20 25 30
Arg Gly Arg Tyr Phe Ser Ser Trp Ala Phe Ile Lys Glu Lys Thr Met
35 40 45
Leu Ala Gly Arg Gly Gly Ser Arg Leu Gln Ser Gln His Phe Gly Arg
50 55 60
Pro Arg Arg Val Asp His Leu Arg Ser Gly Val Gln Asp Gln Pro Gly
65 70 75 80

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln
 85 90 95

Val Trp Trp Leu Thr Leu Met
 100

<210> 1436

<211> 413

<212> PRT

<213> Homo sapiens

<400> 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser
 1 5 10 15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Pro Val His
 20 25 30

Thr Arg Arg Gln Leu Thr Met Asp Asp Asp Ile Ala Ala Leu Val Val
 35 40 45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala
 50 55 60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly
 65 70 75 80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala
 85 90 95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly
 100 105 110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe
 115 120 125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr
 130 135 140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile
 145 150 155 160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala
 165 170 175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp
 180 185 190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala

1513

| 195 | 200 | 205 |
|---|-----|---------|
| Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr | | |
| 210 | 215 | 220 |
| Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr | | |
| 225 | 230 | 235 240 |
| Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr | | |
| | 245 | 250 255 |
| Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser | | |
| | 260 | 265 270 |
| Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile | | |
| | 275 | 280 285 |
| Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe | | |
| | 290 | 295 300 |
| Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile | | |
| 305 | 310 | 315 320 |
| Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val | | |
| | 325 | 330 335 |
| Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln | | |
| | 340 | 345 350 |
| Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile | | |
| | 355 | 360 365 |
| Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu | | |
| | 370 | 375 380 |
| Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr | | |
| 385 | 390 | 395 400 |
| Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe | | |
| | 405 | 410 |

<210> 1437

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

1514

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1437

Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly
 1 5 10 15

Gly His Arg Gly Gly Gly Glu Met Ala Phe Ser Xaa Ser Gln Ala Pro
 20 25 30

Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu
 35 40 45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser
 50 55 60

Gly Thr Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu
 65 70 75 80

Asp Gly Gly Tyr Val Val Cys Thr Ala Gly Arg Thr Glu Ala Gly Gly
 85 90 95

Pro

<210> 1438

<211> 153

<212> PRT

<213> Homo sapiens

<400> 1438

Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser
 1 5 10 15

His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala
 20 25 30

Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu
 35 40 45

Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro
 50 55 60

Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys
 65 70 75 80

Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala
 85 90 95

Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp Ser Arg Tyr Ser

1515

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe | | |
| 115 | 120 | 125 |
| Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn | | |
| 130 | 135 | 140 |
| Gln Glu Leu Lys Ala Lys Ala His Lys | | |
| 145 | 150 | |

<210> 1439

<211> 343

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (305)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (325)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (328)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (340)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1439

| |
|--|
| Trp Ile Gln Arg Ile Arg Ala Arg Gly Lys Thr Asn Leu Arg Arg Thr |
| 1 5 10 15 |

| |
|---|
| Thr Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe |
| 20 25 30 |

| |
|---|
| Glu Pro Gln Ile Arg Lys Ile Val Asp Gln Ile Arg Pro Asp Arg Gln |
|---|

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 35 | | | | | 40 | | | | | 45 | | | | | |
| Thr | Leu | Met | Trp | Ser | Ala | Thr | Trp | Pro | Lys | Glu | Val | Arg | Gln | Leu | Ala |
| 50 | | | | | 55 | | | | | 60 | | | | | |
| Glu | Asp | Phe | Leu | Lys | Asp | Tyr | Ile | His | Ile | Asn | Ile | Gly | Ala | Leu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Ser | Ala | Asn | His | Asn | Ile | Leu | Gln | Ile | Val | Asp | Val | Cys | His | Asp |
| 85 | | | | | 90 | | | | | 95 | | | | | |
| Val | Glu | Lys | Asp | Glu | Lys | Leu | Ile | Arg | Leu | Met | Glu | Glu | Ile | Met | Ser |
| 100 | | | | | 105 | | | | | 110 | | | | | |
| Glu | Lys | Glu | Asn | Lys | Thr | Ile | Val | Phe | Val | Glu | Thr | Lys | Arg | Arg | Cys |
| 115 | | | | | 120 | | | | | 125 | | | | | |
| Asp | Glu | Leu | Thr | Arg | Lys | Met | Arg | Arg | Asp | Gly | Trp | Pro | Ala | Met | Gly |
| 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | His | Gly | Asp | Lys | Ser | Gln | Gln | Glu | Arg | Asp | Trp | Val | Leu | Asn | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Lys | His | Gly | Lys | Ala | Pro | Ile | Leu | Ile | Ala | Thr | Asp | Val | Ala | Ser |
| 165 | | | | | 170 | | | | | 175 | | | | | |
| Arg | Gly | Leu | Asp | Val | Glu | Asp | Val | Lys | Phe | Val | Ile | Asn | Tyr | Asp | Tyr |
| 180 | | | | | 185 | | | | | 190 | | | | | |
| Pro | Asn | Ser | Ser | Glu | Asp | Tyr | Ile | His | Arg | Ile | Gly | Arg | Thr | Ala | Arg |
| 195 | | | | | 200 | | | | | 205 | | | | | |
| Ser | Thr | Lys | Thr | Gly | Thr | Ala | Tyr | Thr | Phe | Phe | Thr | Pro | Asn | Asn | Ile |
| 210 | | | | | 215 | | | | | 220 | | | | | |
| Lys | Gln | Val | Ser | Asp | Leu | Ile | Ser | Val | Leu | Arg | Glu | Ala | Asn | Gln | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Asn | Pro | Xaa | Leu | Leu | Gln | Leu | Val | Glu | Asp | Arg | Gly | Ser | Gly | Arg |
| 245 | | | | | 250 | | | | | 255 | | | | | |
| Ser | Arg | Gly | Arg | Gly | Gly | Met | Lys | Asp | Asp | Arg | Arg | Asp | Arg | Tyr | Ser |
| 260 | | | | | 265 | | | | | 270 | | | | | |
| Ala | Gly | Lys | Arg | Gly | Gly | Phe | Asn | Thr | Phe | Arg | Asp | Arg | Glu | Asn | Tyr |
| 275 | | | | | 280 | | | | | 285 | | | | | |
| Asp | Arg | Gly | Tyr | Ser | Ser | Leu | Leu | Lys | Arg | Asp | Phe | Gly | Ala | Lys | Thr |
| 290 | | | | | 295 | | | | | 300 | | | | | |
| Xaa | Asn | Gly | Gly | Tyr | Ser | Ala | Cys | Lys | Phe | Thr | Asn | Gly | Ser | Phe | Gly |

```

305              310              315              320
Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly
              325              330              335

Ile Pro Thr Xaa Ala Leu Pro
              340

```

Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe
1 5 10 15

1518

Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val
 20 25 30

Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly
 35 40 45

Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg
 50 55 60

Ile Pro Met Glu Asn Lys Phe Asp Phe Ala
 65 70

<210> 1442

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1442

Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro
 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu
 20 25 30

Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly
 35 40 45

Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser
 50 55 60

Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser
 65 70 75 80

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp
 85 90 95

Ser Gln Thr Pro Asp Leu Arg
 100

1519

<210> 1443
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids

1520

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1443

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Ala | Ala | Ala | Cys | Ala | Ala | Ala | Met | Ser | Leu | Val | Ile | Pro | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Gln | His | Ile | Leu | Arg | Val | Leu | Asn | Thr | Asn | Ile | Asp | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Ile | Ala | Phe | Ala | Ile | Thr | Ala | Ile | Lys | Gly | Val | Gly | Arg | Xaa |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ala | His | Val | Xaa | Leu | Arg | Lys | Xaa | Xaa | Ile | Asp | Leu | Thr | Xaa | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Glu | Leu | Thr | Xaa | Asp | Xaa | Val | Glu | Arg | Val | Ile | Thr | Ile | Met |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Xaa | Arg | Gln | Tyr | Lys | Ile | Pro | Asp | Trp | Phe | Leu | Asn | Arg | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Xaa | Xaa | Asp | Xaa | Ser | Thr | Ser | Ser |
| | | 100 | | | | | 105 | | |

<210> 1444

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1444

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Trp | Pro | Lys | Trp | Ser | Gly | Trp | Pro | Leu | Ala | Leu | Pro |
| 1 | | | | 5 | | | | 10 | | | | | |

1521

<210> 1445
 <211> 126
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (123)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (124)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1445
 Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu
 1 5 10 15

Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu
 20 25 30

Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly
 35 40 45

Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys
 50 55 60

Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys
 65 70 75 80

Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His
 85 90 95

Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met
 100 105 110

Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly
 115 120 125

1522

<210> 1446

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1446

Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly
 1 5 10 15

Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser
 20 25 30

Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly
 35 40 45

Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser
 50 55 60

Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn
 65 70 75 80

Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn
 85 90 95

Cys

<210> 1447

<211> 47

<212> PRT

<213> Homo sapiens

<400> 1447

His Ser Arg His Arg Gly Val Phe Leu Thr Pro Leu Leu Ala Met Ser
 1 5 10 15

Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys Gln Lys
 20 25 30

Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly Lys
 35 40 45

1523

<210> 1448

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1448

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Arg | Val | Glu | Ala | Trp | Arg | Thr | Ser | Gly | Glu | Thr | Pro | Ala | Ile |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Ser | Lys | Arg | Ala | Arg | Pro | Ala | Glu | Val | Gly | Gly | Met | Gln | Leu |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Ala | Arg | Leu | Ser | Glu | His | Ala | Thr | Ala | Pro | Thr | Arg | Gly | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ala | Ala | Gly | Tyr | Asp | Leu | Tyr | Ser | Ala | Tyr | Asp | Tyr | Thr | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Met | Glu | Lys | Ala | Val | Val | Lys | Thr | Asp | Ile | Gln | Ile | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Gly | Cys | Xaa | Gly | Arg | Val | Ala | Pro | Arg | Ser | Gly | Leu | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | His | Phe | Ile | Asp | Val | Gly | Xaa | Val | Ser |
| | | | 100 | | | | | 105 | |

<210> 1449

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1524

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1449

Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys
 1 5 10 15

Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr
 20 25 30

Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr
 35 40 45

Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser
 50 55 60

<210> 1450

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1450

Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr
 1 5 10 15

Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe
 20 25 30

Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly
 35 40 45

<210> 1451

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu
 1 5 10 15

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu
 20 25 30

Arg Ile

1525

<210> 1452

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1452

Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro
 1 5 10 15

Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg
 20 25 30

Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala
 35 40 45

Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His
 50 55 60

<210> 1453

<211> 44

<212> PRT

<213> Homo sapiens

<400> 1453

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu
 1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro
 20 25 30

Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu
 35 40

<210> 1454

<211> 118

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1526

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1454

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Val | Ala | Pro | Ser | Val | Leu | Arg | Leu | Ala | Met | Thr | Ser | Tyr | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Arg | Gln | Ser | Ser | Ala | Thr | Ser | Ser | Phe | Gly | Gly | Leu | Gly | Gly | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Arg | Ile | Gly | Pro | Gly | Val | Ala | Phe | Arg | Ala | Pro | Ser | Ile | His |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ser | Gly | Gly | Arg | Gly | Val | Ser | Val | Ser | Ser | Ala | Arg | Phe | Val |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Ser | Ser | Gly | Gly | Tyr | Gly | Gly | Gly | Xaa | Gly | Gly | Val | Leu |
| | 65 | | | | | 70 | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Ser | Xaa | Gly | Leu | Leu | Ala | Gly | Asn | Glu | Lys | Leu | Thr | Met | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Xaa | Xaa | Thr | Ala | Trp | Leu | Leu | Leu | Xaa | Lys | Phe | Ala | Pro | Xaa | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |

Ala Lys Gly Thr Lys Ser

1527

115

<210> 1455

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1455

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Glu | Asn | Ser | Arg | Ile | Val | Leu | Gln | Ile | Asp | Asn | Ala | Arg | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Asp | Asp | Phe | Arg | Thr | Lys | Phe | Glu | Thr | Glu | Gln | Ala | Leu | Arg |
| | | 20 | | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Xaa | Val | Glu | Ala | Asp | Ile | Asn | Gly | Leu | Xaa | Arg | Cys | Trp | Met | Ser |
| | | 35 | | | | | | 40 | | | | 45 | | | |

<210> 1456

<211> 143

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1528

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1456

Gly Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys
 1 5 10 15

Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp
 20 25 30

Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu
 35 40 45

Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg
 50 55 60

Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile
 65 70 75 80

Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu
 85 90 95

Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu
 100 105 110

Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met
 115 120 125

Arg Ser Xaa Tyr Glu Val Met Ala Xaa Gln Asn Arg Lys Asp Ala
 130 135 140

<210> 1457

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1457

Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala
 1 5 10 15

Ser Gly Ser Ala Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser
 20 25 30

Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val

1529

35 40 45
 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val
 50 55 60
 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn
 65 70 75 80
 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala
 85 90 95
 Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys
 100 105 110
 Cys Cys Ser Ser
 115

<210> 1458

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1458

Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala
 1 5 10 15
 Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn
 20 25 30
 Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly
 35 40 45
 Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn
 50 55 60
 Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala
 65 70 75 80
 Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser
 85 90 95
 Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys
 100 105 110

1530

Asp Glu Lys
115

<210> 1459
<211> 132
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1459
Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser
1 5 10 15

Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser
20 25 30

Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ala Ile Ser Lys
35 40 45

Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Leu Gln Val Gln
50 55 60

His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val
65 70 75 80

Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp
85 90 95

Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu
100 105 110

1531

Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val
115 120 125

Xaa Lys His Thr
130

<210> 1460

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1532

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1460

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Xaa | Lys | Thr | Gly | Phe | Xaa | Asp | Trp | Ile | Ser | Val | Ala | Tyr | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Phe | Arg | Glu | Gly | Ala | Thr | Ile | Ile | Gln | Val | Gly | Lys | Leu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Ala | Ala | Gly | Lys | Ser | Asn | Leu | Lys | Arg | Val | Thr | Leu | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Lys | Ser | Pro | Cys | Ile | Val | Leu | Ala | Asp | Ala | Asp | Leu | Asp | Asn |
| | 50 | | | | | 55 | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Glu | Phe | Ala | His | His | Gly | Val | Phe | Tyr | His | Gln | Gly | Gln | Xaa |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Ala | Ala | Xaa | Arg | Ile | Phe | Val | Glu | Glu | Ser | Ile | Tyr | Asp | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Arg | Arg | Ser | Val | Glu | Arg | Val | Lys | Xaa | Ile | Ser | Leu | Gly | Xaa |
| | | | 100 | | | | | | 105 | | | | | 110 | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Thr | Pro | Xaa | Val | Xaa | Xaa | Xaa | Pro | Ser | Asp |
| | | 115 | | | | | | 120 | | | |

<210> 1461

<211> 179

<212> PRT

<213> Homo sapiens

<220>

1533

<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (142)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (157)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (173)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (176)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1461
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala
1 5 10 15
Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu
20 25 30

[illegible]

Gly Ala Ala Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr
20 25 30

1535

<210> 1463

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1463

Asp Asp Cys Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr
1 5 10 15

Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr
20 25 30

Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp
35 40 45

Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val Asp
50 55 60

Xaa Gly Pro Val Xaa Phe Leu
65 70

<210> 1464

<211> 77

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

1536

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1464

Xaa Gly Thr Arg His Xaa Leu Arg Thr Xaa Asn Gln Ser Ser Asp Glu
1 5 10 15

Leu Gln Leu Ser Met Gly Asn Ala Met Phe Val Lys Glu Gln Leu Ser
20 25 30

Leu Leu Asp Arg Phe Thr Glu Asp Ala Lys Arg Leu Tyr Gly Ser Glu
35 40 45

Ala Phe Ala Thr Asp Phe Gln Asp Ser Ala Ala Ala Lys Lys Leu Ile
50 55 60

Asn Asp Tyr Val Lys Asn Gly Thr Arg Gly Thr Ile Thr
65 70 75

<210> 1465

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

Leu Lys Gly Arg Pro Gly Phe Pro Gly Ser Lys Gly Glu Ala Gly Phe
1 5 10 15

Phe Gly Ile Pro Gly Leu Lys Gly Leu Ala Gly Glu Pro Gly Phe Lys
20 25 30

1537

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu
 35 40 45
 Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met
 50 55 60
 Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly
 65 70 75 80
 Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His
 85 90 95
 Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly
 100 105

<210> 1466

<211> 36

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1466

Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro
 1 5 10 15

Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly
 20 25 30

Val Trp Glu Thr
 35

<210> 1467

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1538

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1467

Arg Val Pro Ala Met Ala Ala Lys Gly Gly Thr Val Lys Ala Ala Ser
 1 5 10 15

Ala Phe Asn Ala Thr Glu Asp Ala Gln Thr Leu Arg Lys Ala Met Lys
 20 25 30

Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr Arg
 35 40 45

Asn Thr Ala Gln Arg Gln Glu Ile Arg Thr Ala Leu Gln Glu His His
 50 55 60

Ser Ala Gly Asp Leu Val Leu Arg Asn Gly Pro Xaa Phe Val Xaa Xaa
 65 70 75 80

Trp Xaa

<210> 1468

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1539

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1468

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | His | Leu | Gly | Pro | Pro | Gly | Ser | Trp | Cys | Trp | Trp | Ser | Xaa | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Gly | Pro | Asn | Thr | Ser | Xaa | Cys | Cys | Trp | Thr | His | Phe | Glu | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Xaa | Ile | Asp | Asn | Val | Leu | Val | Ile | Phe | Ser | His | Asp | Phe | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Glu | Ile | Asn | Gln | Leu | Ile | Ala | Gly | Val | Asn | Xaa | Cys | Pro | Val |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Val | Phe | Phe | Pro | Phe | Ser | Ile | Gln | Leu | Phe | Pro | Asn | Xaa | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

Pro Xaa Xaa

<210> 1469

1540

<211> 26

<212> PRT

<213> Homo sapiens

<400> 1469

Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln
1 5 10 15

Pro Lys Ile Val Lys Trp Asp Arg Asp Met
20 25

<210> 1470

<211> 168

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (148)

1541

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1470

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Gly | Gly | Arg | Ser |
| 1 | | | | 5 | | | | | | 10 | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met | Arg | Arg | His | Ser | Ser | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala | Val | Val | Leu | Gln | Arg | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu | Asn | Arg | Leu | Ala | Ala | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu | Glu | Ala | Arg | Thr | Asp | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly | Lys | Trp | Asp | Ala | Pro | Cys |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val | Val | Thr | Arg | Ser | Val | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Leu | Ala | Ser | Ala | Leu | Arg | Pro | Val | Leu | Ser | Phe | Leu | Pro | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Arg | His | Val | Arg | Arg | Xaa | Ser | Pro | Xaa | Ser | Xaa | Lys | Xaa | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Phe | Xaa | Val | Pro | Ile | Xaa | Xaa | Leu | Arg | Asp | Leu | Xaa | Pro | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Ile | Arg | Val | Met | Val | Thr |
| | | | | 165 | | | |

1542

<210> 1471
 <211> 131
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (88)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (111)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (116)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1471
 Cys His Leu Asn Ser Ile His Trp Pro Ser Phe Tyr Asn Val Val Thr
 1 5 10 15

Gly Lys Thr Leu Ala Xaa Pro Asn Leu Ile Ala Leu Gln His Ile Pro
 20 25 30

Leu Ser Pro Ala Gly Ser Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro
 35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Asp Ala Pro Cys Ser
 50 55 60

Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr Ala
 65 70 75 80

Thr Leu Ala Ser Ala Leu Ala Xaa Ala Pro Phe Ala Phe Phe Pro Ser
 85 90 95

1543

Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly
100 105 110

Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys
115 120 125

Lys Leu Asp
130

<210> 1472
<211> 179
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

1544

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (109)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (114)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1545

<221> SITE
 <222> (125)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (150)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (161)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (167)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (179)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1472
 Lys Lys Lys Lys Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

 Lys Lys Lys Lys Gly Gly Arg Xaa Xaa Gly Ser Lys Leu Thr Tyr Ala
 20 25 30

 Cys Met Xaa Arg His Ser Ser Xaa Ile Gly Ser Pro Lys Phe Asn Ser
 35 40 45

 Leu Ala Xaa Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr
 50 55 60

 Gln Leu Asn Arg Leu Ala Xaa His Pro Xaa Phe Ala Ser Trp Arg Asn
 65 70 75 80

 Ser Xaa Lys Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu
 85 90 95

 Asn Gly Lys Trp Asp Xaa Pro Cys Xaa Gly Ala Leu Xaa Xaa Ala Gly
 100 105 110

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala
 115 120 125

Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly
 130 135 140

Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu
 145 150 155 160

Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp
 165 170 175

Gly Ser Xaa

<210> 1473

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1473

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala
 50 55

<210> 1474

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1474

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu
50 55 60

Glu Ala Arg Thr Asp Arg
65 70

<210> 1475

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1475

Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg

1548

1 5 10 15
Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr
 20 25 30
His Ala Ser Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Arg Xaa
 35 40 45
Asp Asp Leu Glu Asp Pro Lys Leu Thr Tyr Xaa Xaa Met Gln
 50 55 60

<210> 1476

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

1549

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1476

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Xaa | Xaa | Xaa | Leu | Arg | Xaa | Asp | Thr | Thr | His | Tyr | Arg | Glu | Ser |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Tyr | Ala | Cys | Arg | Tyr | Arg | Ser | Gly | Ile | Pro | Gly | Xaa | Thr | His | Ala |
| | | 20 | | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Glu | Ile | Cys | Pro | Pro | Xaa | Ser | Arg | Pro | Xaa | Ser | Ser | Gln | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Glu | Gly | Tyr | Ser | Xaa | Cys | Arg | Arg | Pro | Gln | Ala | Leu | Glu | Ala |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Tyr | Leu | Asn | Pro | Val | Pro | Xaa | Arg | Ile | Leu | Leu | Lys | Pro | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

<210> 1477

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1477

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Val | Pro | His | Glu | Arg | Ala | Val | Arg | Asp | Gly | Arg | Gly | Gly | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met | Arg | Arg | His | Ser |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala | Val | Val | Leu | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | |
|-----|-----|-----|-----|
| Arg | Arg | Asp | Trp |
| | | | 50 |

1550

<210> 1478

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1478

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | | 25 | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Ala | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Pro | Ser | Phe | Leu | Ala | Thr | Phe | Ala | Gly | Phe | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Ala | Leu | Asn | Arg | Gly | Leu | Pro | Leu | Gly | Xaa | Arg | Phe | Lys | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Asp | Leu | Asp | Pro | Lys | Lys | Leu | Asp |
| 145 | | | | | | 150 | | | |

<210> 1479

<211> 130

<212> PRT

<213> Homo sapiens

<220>

1551

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1479

Ile Ala Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu
50 55 60

Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly
65 70 75 80

Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val
85 90 95

Val Thr Arg Ser Val Thr Ala Thr Leu Ala Lys Arg Pro Lys Arg Pro
100 105 110

Phe Leu Ser Leu Ser Ser Phe Leu Phe Xaa Pro Arg Ser Ala Gly Phe
115 120 125

Ser Pro
130

<210> 1480

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1552

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1480

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Xaa | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Xaa |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Leu | Leu | Ser | Arg | His | Gly | Arg | Pro | Ala | Xaa | Pro |
| | | 115 | | | | | | 120 | | | | | 125 | | |

| | | |
|-----|-----|-----|
| Xaa | Lys | Leu |
| | | 130 |

<210> 1481

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

1553

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr
1 5 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe
20 25 30

Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly
35 40 45

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp
50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg
65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala
85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro
100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

1554

```

      1             5             10             15
Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met
      20             25             30
Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr
      35             40             45
Phe Xaa Ile Leu Cys
      50

```

```

<210> 1483
<211> 61
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```

<220>
<221> SITE
<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```

<400> 1483
Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr
  1             5             10             15
Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile
      20             25             30
Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala
      35             40             45
Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr
      50             55             60

```

```

<210> 1484
<211> 27
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (6)

```


1555

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1484

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Gly | Pro | Thr | Xaa | Pro | Leu | Pro | Ser | Glu | Thr | Xaa | Gly | Asp | Val |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Leu | Xaa | Cys | Xaa | Xaa | Gly | Leu | Asn | Met |
| | | | 20 | | | | | 25 | | |

<210> 1485

<211> 45

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

1556

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1485

Phe Leu Ala Ala Gly Asn Pro Leu Arg Trp Pro Xaa Ile Leu Thr Ser
 1 5 10 15

Arg Trp Lys Ser Asp Ile Tyr Xaa Arg Lys Ser Asp Gly Xaa Tyr Ile
 20 25 30

Ile Xaa Leu Lys Arg Thr Trp Glu Lys Leu Leu Leu Gly
 35 40 45

<210> 1486

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1486

Pro Arg Val Arg Arg Ala Glu Trp Leu Cys Gly Arg Val Ser Glu Thr
 1 5 10 15

Gly Ser Ala Cys Ser Met Ala Asp Gln Leu Thr Glu Glu Gln Ile Ala
 20 25 30

Glu Phe Lys Glu Ala Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr
 35 40 45

Ile Thr Thr Lys Glu Leu Gly Thr Val Met Arg Ser Leu Gly Gln Asn
 50 55 60

Pro Thr Glu Ala Glu Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp
 65 70 75 80

Gly Asn Gly Thr Ile Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg
 85 90 95

Lys Met Lys Asp Thr Asp Ser Glu Glu Glu Ile Arg Glu Ala Phe Arg
 100 105 110

Val Phe Asp Lys Asp Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg
 115 120 125

His Val Met Thr Asn Leu Gly Arg Glu Val Asn Arg
 130 135 140

1557

<210> 1487
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1487
Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa
1 5 10 15
Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His
20 25 30
Glu Lys Xaa Ser
35

<210> 1488
<211> 34
<212> PRT

1558

<213> Homo sapiens

<400> 1488

Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr
 1 5 10 15

Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala
 20 25 30

Arg Leu

<210> 1489

<211> 160

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1489

Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg
 1 5 10 15

Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr
 20 25 30

Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu
 35 40 45

Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala
 50 55 60

1559

Arg Arg Leu Thr Leu Ala Arg Arg Asp Asp Asp Pro Leu Asn Ala Arg
65 70 75 80

Val Ala Leu Leu Gln Phe Gly Gly Pro Gly Glu Gln Gln Val Ala Phe
85 90 95

Pro Leu Ser His Asn Leu Thr Ala Ile His Glu Ala Leu Glu Thr Thr
100 105 110

Gln Tyr Leu Asn Ser Phe Ser His Val Gly Ala Gly Val Val His Ala
115 120 125

Ile Asn Ala Ile Val Arg Ser Pro Arg Gly Gly Ala Arg Arg His Ala
130 135 140

Glu Leu Pro Ser Trp Ser Ser Arg Thr Ala Ser Arg Ala Thr Thr Xaa
145 150 155 160

<210> 1490

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1560

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1490

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Met | Gly | Met | Leu | Lys | Gly | Pro | Leu | Leu | Asn | Lys | Phe | Leu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Lys | Asp | Lys | Asn | Arg | Trp | Glu | Asp | Xaa | Gly | Lys | Gln | Leu | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Glu | Ala | Thr | Ser | Tyr | Xaa | Leu | Xaa | Ala | Leu | Leu | Gln | Leu | Lys |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Phe | Asp | Phe | Val | Pro | Pro | Val | Val | Xaa | Xaa | Leu | Asn | Xaa | Gln | Arg |
| | | | | | | | 55 | | | | 60 | | | | |

1561

Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe
65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu
85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu
100 105

<210> 1491

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1491

Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp
1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile
20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser
35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys
50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile
65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala
85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe
100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His
115 120 125

<210> 1492

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (62)

1562

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1492

Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala
1 5 10 15

Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His
20 25 30

Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser
35 40 45

Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn
50 55 60

Val Pro Glu Val
65

<210> 1493

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1563

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1493

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Ile | Gln | Lys | His | Asn | His | Ser | Lys | Ser | Thr | Trp | Xaa | Asp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Thr | Arg | Cys | Thr | Asn | Leu | Thr | Lys | Phe | Leu | Xaa | Glu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Gly | Glu | Glu | Val | Leu | Arg | Gly | Thr | Ser | Leu | Glu | Val | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Glu | Xaa | Leu | Arg | Xaa | Val | Arg | Gly | Thr | Phe | Thr | Xaa | Xaa | Pro |
| | 50 | | | | 55 | | | | | | 60 | | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Lys | Leu | Phe | Pro | Lys | Thr | Phe | Xaa |
| 65 | | | | | | 70 | | | |

<210> 1494

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1494

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Thr | Ser | Pro | Ile | Ile | Glu | Glu | Leu | Ile | Thr | Phe | His | Asp | His |
| 1 | | | | | 5 | | | | | 10 | | | | 15 | |

1564

Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu
 20 25 30

Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala
 35 40 45

Xaa Glu Ile Glu Thr Val
 50

<210> 1495

<211> 38

<212> PRT

<213> Homo sapiens

<400> 1495

Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly
 1 5 10 15

Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe
 20 25 30

Gly Tyr Ile Gly Met Val
 35

<210> 1496

<211> 46

<212> PRT

<213> Homo sapiens

<400> 1496

Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His
 1 5 10 15

Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu
 20 25 30

Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr
 35 40 45

<210> 1497

<211> 60

<212> PRT

<213> Homo sapiens

<400> 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu
 1 5 10 15
 Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe
 20 25 30
 Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn
 35 40 45
 Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val
 50 55 60

<210> 1498
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 1498
 Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile
 1 5 10 15
 Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly
 20 25 30
 Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val
 35 40 45

<210> 1499
 <211> 69
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (63)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499
 His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys
 1 5 10 15
 Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln
 20 25 30
 Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu
 35 40 45

1566

Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys
50 55 60

Leu Gln Lys Gly Asp
65

<210> 1500

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1500

Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu
1 5 10 15

Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala
20 25 30

Ser Leu Thr
35

<210> 1501

<211> 126

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1567

<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1568

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1501

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Ala | Pro | Ser | Arg | Ile | Ser | Ala | Trp | Xaa | Gly | Pro | Pro | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Ser | Thr | Met | Ser | Ile | Lys | Val | Thr | Gln | Lys | Ser | Tyr | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Thr | Ser | Ser | Pro | Arg | Ala | Phe | Ser | Ser | Arg | Ser | Tyr | Thr | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gly | Ser | Arg | Ile | Asn | Xaa | Ser | Xaa | Phe | Ser | Arg | Ile | Gly | Ser |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Xaa | Xaa | Ser | Gly | Leu | Gly | Gly | Gly | Tyr | Xaa | Gly | Ala | Ser | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Xaa | Gly | Ile | Thr | Ala | Val | Thr | Val | Asn | Gln | Ser | Leu | Leu | Xaa | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Leu | Glu | Val | Asp | Pro | Asn | Ile | Gln | Ala | Val | Arg | Thr | Gln | Glu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Gln | Ile | Xaa | Thr | Leu | Asn | Asn | Lys | Phe | Ala | Ser | Ser |
| | | 115 | | | | | 120 | | | | | 125 | |

<210> 1502

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1569

<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1570

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1502

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Ser | Xaa | Gly | Ser | Arg | Thr | Xaa | Xaa | Ser | Arg | Xaa | Xaa | Cys |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Val | Ala | Met | Phe | Ser | Trp | Asp | Pro | Xaa | Leu | Val | Xaa | Gly | Gly |
| | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Ser | Lys | Met | Ala | Val | Ala | His | Ala | Leu | Xaa | Glu | Lys | Ser | Xaa |
| | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Asp | Trp | Cys | Gly | Asn | Asn | Gly | His | Thr | Gly | Leu | Leu | Xaa | Arg |
| | 50 | | | | 55 | | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Xaa | Val | His | Ser | Ser | Xaa | Pro | Trp | Ile | Xaa | Lys | Leu | Trp | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

Xaa Ser His His

<210> 1503

<211> 70

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1571

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1503

Val Gly Val Leu Gly Leu Asp Leu Trp Gln Val Lys Ser Gly Thr Ile
1 5 10 15

Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu Ala Tyr Ala Glu Glu Phe
20 25 30

Gly Asn Glu Thr Trp Gly Val Thr Lys Ala Ala Glu Lys Gln Met Lys
35 40 45

Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys Glu Glu Glu Asp Lys
50 55 60

Lys Arg Lys Glu Xaa Xaa
65 70

<210> 1504

<211> 42

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

1572

<400> 1504

Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Leu Xaa
1 5 10 15

Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp
20 25 30

Ser Met Leu Glu His Glu Ala Tyr Xaa Ile
35 40

<210> 1505

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1505

Xaa His Xaa Asp Cys Ser Xaa Pro Ile Val Ala Ala Gly Val Gly Glu
1 5 10 15

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu
 20 25 30
 Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys
 35 40 45
 Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile
 50 55 60
 Xaa Lys Glu Val Ser Thr Tyr Xaa
 65 70

<210> 1506
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 1506
 Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu
 1 5 10 15
 Asp Asn Phe Leu Asp Lys Leu
 20

<210> 1507
 <211> 87
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (79)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1507
 Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn
 1 5 10 15
 Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly
 20 25 30
 His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys
 35 40 45
 Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala
 50 55 60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile
 65 70 75 80

Gly Tyr Leu Leu Val Glu Ile
 85

<210> 1508
 <211> 110
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (4)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (96)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (99)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (108)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1508
 Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser
 1 5 10 15

Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro
 20 25 30

Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val
 35 40 45

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Ala Arg Ala His Arg
 50 55 60

1575

Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe
65 70 75 80

Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa
85 90 95

Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys
100 105 110

<210> 1509

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1576

<400> 1509

Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser
1 5 10 15

Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr
20 25 30

Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro
35 40 45

Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr
50 55 60

<210> 1510

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1510

Gly Thr Ser Ser Ser Gln Arg Phe Tyr Lys Glu Asn Leu Gly Gln Gly
1 5 10 15

Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly
20 25 30

Phe Ser Ala Phe Pro Phe Glu Leu Leu His Thr Pro Glu Lys Trp Val
35 40 45

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly

1577

50 55 60
 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile
 65 70 75 80
 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro
 85 90 95
 Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu
 100 105 110
 Asp Asn Xaa Phe
 115

<210> 1511
 <211> 156
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (11)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (143)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1511
 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr
 1 5 10 15
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly
 20 25 30
 Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly
 35 40 45
 Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser
 50 55 60
 Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn
 65 70 75 80

1578

Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Gly Asp Arg Gly
85 90 95

Arg Gly Gly Pro Gly Gly Met Xaa Gly Gly Arg Gly Gly Leu Met Asp
100 105 110

Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg
115 120 125

Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Xaa Gly
130 135 140

Gly Arg Arg Gly Gly Pro Gly Gly Pro Leu Asp Leu
145 150 155

<210> 1512

<211> 102

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

1579

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1512

Pro Met Arg Arg Pro Arg Gly Glu Pro Ala Pro Gly Pro Arg Asp Arg
 1 5 10 15

Leu Arg Glu Arg Pro Ala Gln Gly Pro Gly Ser His Val Arg Val Ala
 20 25 30

Pro Leu Ala Thr Val Asn Ile Leu Xaa Ser Leu Cys Gln Leu Arg Cys
 35 40 45

Leu Pro Phe Xaa Ala Leu His Phe Val Xaa Ser Pro Gly Phe Ile Xaa
 50 55 60

Tyr Ile Ser Gly Thr Pro His Ala Leu Ile Val Arg Arg Tyr Leu Ser
 65 70 75 80

Leu Leu Asp Thr Ala Val Glu Leu Xaa Leu Pro Arg Tyr Arg Gly Pro
 85 90 95

Arg Leu Pro Arg Xaa Gln
 100

<210> 1513

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1513

Glu Thr Glu Arg Gly Phe Glu Glu Leu Pro Leu Cys Ser Cys Arg Met
 1 5 10 15

Glu Ala Pro Lys Ile Asp Ser Ile Ser Glu Arg Ala Gly His Lys Cys
 20 25 30

Met Ala Thr Glu Ser Val Asp Gly Glu Leu Ser Gly Cys Asn Ala Ala
 35 40 45

Ile Leu Lys Arg Glu Thr Met Arg Pro Ser Ser Arg Val Ala Leu Met
 50 55 60

Val Leu Cys Glu Thr His Arg Ala Arg Met Val Lys His His Cys Cys
 65 70 75 80

1580

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His
85 90 95

Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln
100 105 110

Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu
115 120 125

Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly
130 135

<210> 1514

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1581

<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1514
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His
1 5 10 15
Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg
20 25 30
Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr
35 40 45
Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val
50 55 60
Thr Phe Thr Xaa Met Xaa His Gly
65 70

1582

<210> 1515

<211> 88

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1515

Leu Tyr Pro Pro Ala Cys Ser Ala Thr Arg Thr Pro Ser Thr Met Thr
1 5 10 15

Thr Ser Ala Ser Ser His Leu Asn Lys Gly Ile Lys Gln Val Tyr Met
20 25 30

Ser Leu Pro Gln Gly Glu Lys Val Gln Ala Met Tyr Ile Trp Ile Asp
35 40 45

Gly Thr Gly Glu Gly Leu Arg Cys Lys Thr Arg Thr Leu Asp Ser Glu
50 55 60

Pro Lys Cys Val Glu Glu Leu Pro Glu Trp Asn Phe Asp Gly Ser Ser
65 70 75 80

Thr Xaa Gln Ser Xaa Gly Ser Ser
85

<210> 1516

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

1583

<220>
 <221> SITE
 <222> (11)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (27)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (38)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (87)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (89)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (94)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1516

Gly Arg Glu Ser Gln Asp Thr Xaa Phe Xaa Xaa Leu Val Glu Arg Val
 1 5 10 15

Ile Gln Gln Leu Glu Gly Ala Phe Ala Leu Xaa Phe Lys Ser Val His
 20 25 30

Phe Pro Gly Gln Ala Xaa Gly Thr Arg Arg Gly Ser Pro Leu Leu Ile
 35 40 45

Gly Val Arg Ser Glu His Lys Leu Ser Thr Asp His Ile Pro Ile Leu
 50 55 60

Tyr Arg Thr Gly Lys Asp Lys Lys Gly Ser Cys Asn Leu Ser Arg Val
 65 70 75 80

1584

Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr
85 90 95

Tyr Phe Ala Ser Asp Ala Xaa Ala Ala
100 105

<210> 1517

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1585

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1517

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Xaa | Glu | Lys | Arg | Glu | Arg | Glu | Arg | Glu | Arg | Leu | Val | Ile | Arg | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Val | Gln | Xaa | Leu | Gln | Ala | Tyr | Lys | Pro | Arg | Glu | Asn | Asp |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ala | Leu | Glu | Lys | Ala | Asp | Val | Val | Met | Val | Thr | His | Gln | Ser |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Arg | Leu | Ala | Gly | Gly | Arg | Glu | Ala | Leu | Arg | Arg | Gly | Ala | Arg |
| | | 50 | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ser | Cys | Asp | Ser | Xaa | Xaa | Ser | Ser | Phe | Pro | Thr | Gln | Arg | Ser |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Gln | Asn | Leu | Lys | Gly | Ser | Phe | Ile | Glu | Cys | Lys | Thr | Cys | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Ala | Xaa | Gly | Asn | Ser | Lys | Pro | Xaa | Phe | Ser | Xaa | Xaa | Glu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Val | Ser | Trp | Lys | Asn | Lys | Leu |
| | | 115 | | | | | 120 | |

<210> 1518

<211> 146

<212> PRT

<213> Homo sapiens

<220>

1586

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1518

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Pro | Ala | Gln | Arg | Gly | Glu | Gly | Ala | Arg | Glu | Ala | Asn | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Lys | Gln | Leu | Gln | Lys | Asp | Lys | Gln | Val | Tyr | Arg | Ala | Thr | His |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Leu | Leu | Leu | Gly | Ala | Gly | Glu | Ser | Gly | Lys | Ser | Thr | Ile | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Met | Arg | Ile | Leu | His | Val | Asn | Gly | Phe | Asn | Gly | Asp | Ser | Glu |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Thr | Lys | Val | Gln | Xaa | Ile | Lys | Asn | Asn | Leu | Lys | Glu | Ala | Ile |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ile | Val | Ala | Ala | Met | Ser | Asn | Leu | Val | Pro | Pro | Val | Glu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Pro | Glu | Asn | Gln | Phe | Arg | Val | Asp | Tyr | Ile | Leu | Ser | Val | Met |
| | | 100 | | | | | | 105 | | | | 110 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Pro | Asp | Phe | Xaa | Phe | Pro | Pro | Glu | Phe | Tyr | Glu | His | Ala | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Trp | Xaa | Asp | Glu | Xaa | Val | Arg | Xaa | Cys | Tyr | Glu | Arg | Ser | Asn |
| | 130 | | | | | | 135 | | | | | | 140 | | |

1587

Glu Tyr
145

<210> 1519

<211> 137

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519

Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu
1 5 10 15

Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr
20 25 30

Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp
35 40 45

Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly
50 55 60

Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu
65 70 75 80

Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg
85 90 95

Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu
100 105 110

Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg
115 120 125

Pro Ala Trp Arg Ser Thr Ser Leu Phe
130 135

<210> 1520

<211> 100

<212> PRT

<213> Homo sapiens

1588

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1520

Cys Arg Lys Ser Ser Trp Lys Arg Trp Trp Pro Gln Ser Lys Leu Xaa
1 5 10 15

Thr Arg Xaa Ile Val Thr Ile Gly Ile Lys Ala Met Ala Thr Met Asp
20 25 30

Ile Thr Ala Lys Val Thr Val Val Met Glu Asp Met Xaa Tyr Thr Gly
35 40 45

Tyr Asn Asn Tyr Tyr Gly Tyr Gly Asp Tyr Ser Asn Gln Gln Ser Gly
50 55 60

Tyr Gly Lys Val Ser Arg Arg Gly Gly His Gln Asn Ser Tyr Lys Pro
65 70 75 80

Tyr Leu Asn Tyr Ser Ile Cys Asn Leu Ser Pro Thr Gly Gly Glu Ala
85 90 95

Tyr Phe Xaa Ile
100

<210> 1521

<211> 129

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1589

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1521

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Trp | Ala | Leu | Ala | Pro | Gly | Pro | Val | Leu | Phe | Ser | Asn | Met | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Lys | Phe | Pro | Gly | Ser | Ser | Cys | Met | Ala | Ala | Leu | Thr | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Val | Leu | Asn | Ser | Pro | Leu | Ala | Leu | Ala | Gly | Asp | Thr | Arg | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Leu | Glu | Gln | Val | Lys | His | Glu | Cys | His | Phe | Phe | Asn | Gly | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Val | Arg | Phe | Leu | Asp | Xaa | Tyr | Phe | Tyr | His | Gln | Glu | Glu | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Phe | Asp | Ser | Asp | Val | Gly | Glu | Tyr | Arg | Ala | Val | Thr | Xaa | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Pro | Asn | Ser | Glu | Tyr | Trp | Asn | Ser | Gln | Lys | Asp | Xaa | Xaa | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Pro | Arg | Trp | Thr | Pro | Thr | Ala | Xaa | Thr | Leu | Arg | Gly | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Val

1590

<210> 1522
<211> 113
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

1591

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1522

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Thr | Asp | Ser | Xaa | Arg | Pro | Asp | Ser | Arg | Val | Asp | Pro | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Val | Thr | Asp | Tyr | Ala | Ile | Ala | Arg | Arg | Ile | Val | Asp | Leu | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ile | Glu | Glu | Ser | Ile | Xaa | Asn | Ile | Tyr | Xaa | Leu | Asp | Asp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Tyr | Leu | Xaa | Tyr | Ala | Arg | Lys | Xaa | Lys | Pro | Lys | Asn | Ser | Lys |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Xaa | Asp | Phe | Ile | Val | Glu | Gln | Xaa | Lys | His | Leu | Arg | Pro | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Phe | Trp | Ser | Ser | Pro | Val | Phe | Xaa | Glu | Gly | Xaa | Ser | Cys | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ile | Glu | Gly | Leu | Gly | Ser | Val | Ser | Leu | Gly | Ser | Gln | Xaa | Leu | Arg |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1592

100

105

110

Val

<210> 1523 .

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa

1

5

10

15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn

20

25

30

<210> 1524

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys Ser Leu Asn Arg Asp Leu Tyr

1

5

10

15

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

20

25

<210> 1525

<211> 92

<212> PRT

1593

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1525

Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr

1

5

10

15

1594

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro
 20 25 30
 Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro
 35 40 45
 Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly
 50 55 60
 Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa
 65 70 75 80
 Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa
 85 90

<210> 1526

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1526

Xaa Glu Pro Ser Pro Gly Ile Phe Arg Trp Phe His Leu Val Asn Arg
 1 5 10 15
 Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe
 20 25 30
 Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu
 35 40 45
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 50 55 60
 Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg
 65 70 75 80
 Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser
 85 90 95

1595

Gly Tyr Asn Thr Tyr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val
 100 105 110

Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 115 120 125

Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met
 130 135 140

Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr
 145 150

<210> 1527

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1527

Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp
 1 5 10 15

Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys
 20 25 30

Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp
 35 40 45

Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg
 50 55 60

1596

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly
65 70 75 80

Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp
85 90 95

Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe
100 105 110

Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile
115 120 125

Xaa Leu His Leu Xaa Xaa Ile
130 135

<210> 1528

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1528

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr
1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu
20 25 30

Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr
35 40 45

Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val
50 55 60

Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu
65 70 75 80

Thr Leu Leu Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala
85 90 95

1597

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala
100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn
115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala
130 135

<210> 1529

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn
1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu
20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln
35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys
50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp
65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln
85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val
100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser
115 120 125

Leu Glu Ile Asp Leu Gly Leu
130 135

<210> 1530

<211> 132

<212> PRT

<213> Homo sapiens

1598

<400> 1530

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg
1 5 10 15

Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly
20 25 30

Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser
35 40 45

Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val
50 55 60

Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu
65 70 75 80

Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser
85 90 95

Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu
100 105 110

Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg
115 120 125

Phe Ser Thr Gly
130

<210> 1531

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

1599

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1531

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Arg | Leu | Lys | Gly | Glu | Glu | Gln | Lys | Leu | Leu | Arg | Asn | Ala | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Gln | Lys | Met | Ala | Cys | Gln | Met | Thr | Xaa | Asn | His | Ser | Ser | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Xaa | Leu | Lys | Gly | Ser | Ser | Leu | Gln | Asp | Arg | Arg | Ala | Ser | Arg | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Lys | Ser | Val | Gln | Lys | Ser | Ser | Gly | Val | Gln | Xaa | Asp | Pro | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ile | Ser | Xaa | Pro | Ser | Leu | Thr | Ala | Xaa | Trp | Ser | Xaa | Leu | Pro |
| | 65 | | | | | 70 | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | His | Leu | Arg | Gly | Pro | Lys | Ala | Ala | Lys | Thr | Leu | Lys | Xaa |
| | | | | 85 | | | | | 90 | | | | |

<210> 1532

<211> 153

<212> PRT

<213> Homo sapiens

1600

<400> 1532

Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser
 1 5 10 15
 Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr
 20 25 30
 Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg
 35 40 45
 Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Gly Leu Leu Met Leu
 50 55 60
 Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly
 65 70 75 80
 Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser
 85 90 95
 Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile
 100 105 110
 Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu
 115 120 125
 Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser
 130 135 140
 Gly Tyr Leu His Met Val Arg Val His
 145 150

<210> 1533

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1533

Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser
 1 5 10 15
 Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val
 20 25 30
 Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly
 35 40 45
 Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser
 50 55 60

1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys
 65 70 75 80
 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro
 85 90 95
 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile
 100 105 110
 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu
 115 120 125
 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile
 130 135 140

<210> 1534

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1534

Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile
 1 5 10 15

Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile
 20 25 30

Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa
 35 40 45

1602

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met
 50 55 60

Lys Asp Leu
 65

<210> 1535
 <211> 72
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (1)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (8)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1535
 Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr
 1 5 10 15

Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met
 20 25 30

Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe
 35 40 45

Phe His Cys Ile Leu Val Val Val Cys Pro Asn Ser Ser Met Tyr Leu
 50 55 60

Ile Met Ser Gly Ser Ile Leu His
 65 70

<210> 1536
 <211> 80
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (20)
 <223> Xaa equals any of the naturally occurring L-amino acids

1603

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1536

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Ala | Trp | Gly | Ser | Glu | Cys | Glu | Lys | Cys | Pro | Leu | Pro | Gly | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Phe | Xaa | Glu | Ile | Cys | Pro | Ala | Gly | His | Gly | Tyr | Thr | Tyr | Ala |
| | | | 20 | | | | | | 25 | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Asp | Ile | Arg | Leu | Ser | Met | Arg | Lys | Ala | Glu | Xaa | Glu | Glu | Leu |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Pro | Pro | Arg | Glu | Gln | Gly | Gln | Xaa | Ser | Ser | Trp | Ala | Leu | Pro |
| | | 50 | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Thr | Xaa | Lys | Gln | Pro | Leu | Arg | Val | Arg | His | Gly | His | Leu | Ala |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |

<210> 1537

<211> 137

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

1604

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1537

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Gln | Cys | Gln | Asp | Ser | Lys | Asp | Ser | Asn | His | Leu | Pro | Lys | Met |
| 1 | | | | 5 | | | | | | 10 | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Ser | Ala | Phe | Thr | Leu | Phe | Leu | Ala | Leu | Ile | Gly | Gly | Thr | Ser |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Tyr | Tyr | Asp | Tyr | Asp | Phe | Pro | Leu | Ser | Ile | Tyr | Gly | Gln | Ser |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Asn | Cys | Ala | Pro | Glu | Cys | Asn | Xaa | Pro | Glu | Ser | Tyr | Pro | Ser |
| | | 50 | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Tyr | Cys | Asp | Glu | Leu | Lys | Leu | Xaa | Ser | Val | Pro | Met | Val | Pro |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ile | Lys | Tyr | Leu | Tyr | Leu | Arg | Asn | Asn | Gln | Ile | Asp | His | Ile |
| | | | | | 85 | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Lys | Ala | Phe | Glu | Asn | Val | Thr | Asp | Leu | Gln | Trp | Leu | Ile | Leu |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | His | Asn | Leu | Leu | Glu | Asn | Ser | Lys | Xaa | Lys | Gly | Arg | Val | Phe | Ser |
| | | | 115 | | | | | 120 | | | | 125 | | | |

1605

Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa
 130 135

<210> 1538

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1538

Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu
 1 5 10 15

Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp
 20 25 30

Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr
 35 40 45

Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys
 50 55 60

Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys
 65 70 75 80

Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu
 85 90 95

Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu
 100 105 110

Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu
 115 120 125

Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu
 130 135 140

1606

<210> 1539

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1539

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Met | Ala | Gly | Val | Glu | Glu | Val | Ala | Ala | Ser | Gly | Ser | His | Leu | Asn |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Leu | Asp | Pro | Asp | Asp | Arg | Glu | Glu | Gly | Ala | Ala | Ser | Thr | Ala |
| | 20 | | | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Xaa | Ala | Lys | Lys | Lys | Arg | Arg | Lys | Lys | Lys | Lys | Ser | Lys | Gly |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Ala | Gly | Lys | Glu | Ser | Phe | Met | Phe | Ser | Gln | Ser | Pro | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Glu | Leu | Phe | Gly | Ser | Gly | Pro | Leu | Arg | Gly | Pro | Gly | Pro | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | |
|-----|-----|-----|-----|-----|
| Pro | Gln | Ser | Pro | Asp |
| | | | | 85 |

<210> 1540

<211> 36

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

1607

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1540

Gly Val Gly Phe Arg Glu Gly Thr Xaa Gly Ala Gln Thr Gln Arg Ile
1 5 10 15

Arg Xaa Arg Val Pro Xaa Asn Trp Lys Met Xaa Phe Glu Pro Ile Ser
20 25 30

Ser Thr Lys Phe
35

<210> 1541

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1608

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1541

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Xaa | Ala | Xaa | Gly | Glu | Arg | Ala | Cys | Arg | Ser | Thr | Leu | Val | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Xaa | Val | Xaa | Thr | Val | Phe | Ser | Leu | Gly | Ala | Cys | Met | Glu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Ile | Leu | Leu | Asn | Arg | Leu | Leu | Gly | Ile | Ser | Leu | Tyr | Ala | Glu |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Ala | Lys | Gly | Glu | Val | Trp | Ser | Glu | Asp | Val | Arg | Lys | Leu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | His | Glu | Ser | Glu | Gly | Leu | Leu | Gly | Tyr | Ile | Tyr | Cys | Asp | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gln | Arg | Ala | Asp | Lys | Pro | His | Gln | Asp | Cys | His | Phe | Thr | Ile | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Arg | Leu | Lys | Gly | Arg | Trp | Glu | Thr | Xaa | Gln | Leu | Pro | Val | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Ala | Gly | Ile | Phe | Pro | Val | Pro | Xaa | Arg | Glu | Phe | Ser | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Xaa | Xaa | Leu | Gly | Met | Met | Gly | Lys | Pro | Phe | Pro | Gly | Xaa | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1609

<210> 1542

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1542

Ala Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro
 1 5 10 15

Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His
 20 25 30

Leu Thr Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg
 35 40 45

Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val
 50 55 60

Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly
 65 70 75 80

Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp
 85 90 95

Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys Leu Val Gln Asp Val
 100 105 110

Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr
 115 120 125

Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe Glu Lys Ile Ser Lys
 130 135 140

Gly

145

<210> 1543

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1543

Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu
 1 5 10 15

1610

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val
20 25 30

Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val
35 40 45

Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly
50 55 60

Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly
65 70 75 80

Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu
85 90 95

Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg
100 105 110

Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln
115 120 125

Ser Lys Pro Val Thr Thr Pro
130 135

<210> 1544

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

1611

<400> 1544

Cys Glu Phe Lys Arg Val Pro Gln Cys Pro Ser Gly Arg Val Tyr Val
1 5 10 15

Leu Lys Phe Lys Ala Gly Ser Lys Arg Leu Phe Phe Trp Met Gln Glu
20 25 30

Pro Lys Thr Asp Gln Asp Glu Glu His Cys Arg Lys Val Asn Glu Leu
35 40 45

Ser Gly Thr Thr Pro Arg Cys Leu Gly His Trp Gly Pro Ala Glu Gln
50 55 60

Arg Pro Arg Xaa Leu Cys Ala Xaa Arg Leu Arg Trp Xaa Ala Glu Xaa
65 70 75 80

Ala Gly Glu Thr

<210> 1545

<211> 22

<212> PRT

<213> Homo sapiens

<400> 1545

Tyr Leu Arg Leu Ile Tyr Ser Thr Ser Ile Thr Leu Leu Pro Ile Ser
1 5 10 15

Asn Asn Val Lys Ile Lys
20

<210> 1546

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1612

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1613

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1546

Pro Ser Ala Ala Ala Gly Asp Leu Gln Arg Thr Ala Ala Met Gly Ala
 1 5 10 15

His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Xaa Pro Asp Pro
 20 25 30

Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro Glu Arg Lys
 35 40 45

Xaa Arg Xaa Met Val Ala Thr Xaa Xaa Xaa Met Met Asp Ala His Xaa
 50 55 60

Ser Ser Xaa Cys Gly Xaa Thr Ala Pro Thr Asn Ser Ser Gly Cys Ser
 65 70 75 80

Ile Xaa Thr Leu Xaa Leu Pro Pro Leu Pro Trp Leu Ala Asn Gln Glu
 85 90 95

Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro
 100 105 110

1614

<210> 1547

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1547

Lys Val Ser Ala Val Met Ala Phe Leu Ala Ser Gly Pro Tyr Leu Thr
 1 5 10 15

His Gln Gln Lys Val Leu Arg Leu Tyr Lys Arg Ala Leu Arg His Leu
 20 25 30

Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr Arg Tyr Phe Ala Cys Leu
 35 40 45

Met Arg Ala Arg Phe Glu Glu His Lys Asn Glu Lys Asp Met Ala Lys
 50 55 60

Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Phe Trp Tyr Arg Gln
 65 70 75 80

His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Pro Gly Gly Thr Ser Tyr
 85 90 95

Glu Arg Tyr Asp Cys Tyr Lys Val Pro Glu Trp Cys Leu Asp Asp Trp
 100 105 110

His Pro Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu
 115 120 125

Gln Trp Lys Lys Leu Arg Glu Gly Lys Leu Gly Thr Arg Gly
 130 135 140

<210> 1548

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1615

<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1616

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1548

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Tyr | Xaa | Leu | Gly | Phe | Leu | Xaa | Leu | Xaa | Xaa | Arg | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ala | Lys | Arg | Xaa | His | Asp | Glu | Leu | Gly | Asn | Glu | Arg | Pro | Xaa |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Tyr | Met | Xaa | Glu | His | Asn | Gln | Leu | Asn | Gly | Trp | Xaa | Ser | Asp | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Trp | Asn | Glu | Lys | Leu | Tyr | Pro | Val | Trp | Lys | Arg | Xaa | Asp | Met |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Glu | Lys | Leu | Leu | Glu | Gly | Arg | Pro | Val | Cys | Lys | Ala | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Asp | Xaa | Pro | Thr | Leu | Gly | Gly | Leu | Lys | Xaa | Asn | Ile | Xaa | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Xaa Thr

<210> 1549

<211> 138

<212> PRT

<213> Homo sapiens

1617

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1549

Gly Cys Ser Leu Glu Gln Arg Ser Phe Ile Ser Val Arg Leu Leu Ser
1 5 10 15

Tyr Leu Ser Ala Cys Arg His Pro Met Glu Asp Ser Met Asp Met Asp
20 25 30

Met Ser Pro Leu Arg Pro Gln Asn Tyr Leu Phe Gly Cys Glu Leu Lys
35 40 45

Ala Asp Lys Asp Tyr His Phe Lys Val Asp Asn Xaa Glu Asn Glu His
50 55 60

Gln Leu Ser Leu Arg Thr Val Xaa Xaa Gly Ala Gly Ala Lys Asp Glu
65 70 75 80

1618

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile
85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa
115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln
130 135

<210> 1550

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1550

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro
1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu
35 40 45

Thr Pro Cys
50

<210> 1551

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1619

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1551

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Xaa | Ser | Val | Xaa | Leu | Tyr | Lys | Val | Arg | Leu | Gln | Val | Pro | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Ser | Arg | Val | Asp | Pro | Arg | Val | Arg | Xaa | Gly | Gly | Glu | Gln | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Thr | Ile | Xaa | Gly | Leu | Ser | Gly | Pro | Pro | Ser | Arg | Arg | Gly | Pro |
| | | 35 | | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Pro | Leu | Ala | Trp | Val | Ile | Leu | Phe | Leu | Leu | Glu | Ala | Gln | Xaa | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Trp | Xaa | Leu | Leu | Pro | Ser | Ala | His |
| 65 | | | | | | 70 | | |

<210> 1552

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

1620

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1552

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Ala | Xaa | Xaa | Glu | Leu | Leu | Thr | Gln | Pro | Gly | Asp | Trp | Thr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Pro | Thr | Asn | Asp | Ala | Phe | Lys | Gly | Met | Thr | Ser | Glu | Glu | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ile | Leu | Ile | Arg | Asp | Lys | Asn | Ala | Leu | Gln | Asn | Ile | Ile | Leu | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Leu | His | Gln | Glu | Phe | Ser | Leu | Glu | Lys | Asp | Leu | Asn | Leu | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Phe | Leu | Lys | Thr | Thr | Gln | Gly | Ser | Lys | Ile | Phe | Leu | Glu | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

1621

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa
 85 90 95

Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu
 100 105 110

Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly
 115 120 125

Xaa Asp Thr
 130

<210> 1553

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1553

Trp Ile Xaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met
 1 5 10 15

Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys
 20 25 30

Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu
 35 40 45

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

```

50              55              60
His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp
65              70              75              80

Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser
85              90              95

Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp
100            105

<210> 1554
<211> 117
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (109)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1554
Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys
1      5      10      15

Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr
20      25      30

Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser
35      40      45

Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala
50      55      60

Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe
65      70      75      80

Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His
85      90      95

Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val
100     105     110

Phe Ala Cys Trp Thr
115

```

<210> 1555

1623

<211> 164
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (79)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (86)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (125)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1555
 Glu Lys Lys Val Glu Arg Gln Thr Glu Leu Lys Arg Lys Phe Glu Gln
 1 5 10 15
 Met Lys Gln Asp Arg Ile Thr Arg Tyr Gln Gly Val Asn Leu Tyr Val
 20 25 30
 Lys Asn Leu Asp Asp Gly Ile Asp Asp Glu Arg Leu Arg Lys Glu Phe
 35 40 45
 Ser Pro Phe Gly Thr Ile Thr Ser Ala Lys Val Met Met Glu Gly Gly
 50 55 60
 Arg Ser Lys Gly Phe Gly Phe Val Cys Phe Ser Ser Pro Glu Xaa Ala
 65 70 75 80
 Thr Lys Ala Val Thr Xaa Met Asn Gly Arg Ile Val Ala Thr Lys Pro
 85 90 95
 Leu Tyr Val Ala Leu Ala Gln Arg Lys Glu Glu Arg Gln Ala His Leu
 100 105 110
 Thr Asn Gln Tyr Met Gln Arg Met Ala Ser Val Arg Xaa Val Pro Asn
 115 120 125
 Pro Val Ile Asn Pro Tyr Gln Pro Ala Pro Pro Ser Gly Tyr Phe Met
 130 135 140
 Ala Ala Ile Pro Gln Thr Gln Asn Val Leu His Thr Ile Leu Leu Ala
 145 150 155 160
 Lys Leu Leu Asn

1624

<210> 1556
<211> 166
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1625

<222> (150)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1556

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Leu | Thr | Leu | Thr | Xaa | Gly | Xaa | Lys | Xaa | Xaa | Xaa | Xaa | Thr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Ala | Ala | Leu | Ala | Thr | Ser | Gly | Ser | Pro | Gly | Pro | Val | Arg | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Arg | Ala | Gly | Thr | Ser | Glu | Phe | Leu | Asn | Lys | Val | Thr | Glu | Ala |
| | | 35 | | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Asp | Gly | Gln | Ser | Thr | Ser | Glu | Leu | Ile | Gly | Gln | Phe | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | Tyr | Ser | Ala | Phe | Leu | Val | Ala | Asp | Lys | Val | Ile | Val | Thr | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | His | Asn | Asn | Asp | Thr | Gln | His | Ile | Trp | Glu | Ser | Asp | Ser | Asn | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ser | Val | Ile | Ala | Asp | Pro | Arg | Gly | Asn | Thr | Leu | Gly | Arg | Gly | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Thr | Leu | Val | Leu | Lys | Glu | Glu | Ala | Ser | Asp | Tyr | Leu | Glu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Thr | Ile | Lys | Asn | Leu | Val | Lys | Lys | Tyr | Ser | Gln | Phe | Ile | Asn | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ile | Tyr | Val | Trp | Xaa | Ser | Lys | Thr | Glu | Thr | Val | Xaa | Glu | Pro | Met |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Glu | Gly | Ala | Ala |
| | | | | 165 | |

<210> 1557

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1626

<222> (1)
<223> xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (90)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (95)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (103)

1627

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1557

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Asn | Val | Val | Glu | Ala | Gln | Phe | Asp | Ser | Arg | Val | Arg | Ala | Thr | Gly |
| 1 | | | | 5 | | | | | | 10 | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Xaa | Xaa | Xaa | Tyr | Asn | Lys | Trp | Glu | Thr | Ile | Glu | Ala | Trp | Thr |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Val | Ala | Thr | Xaa | Asn | Pro | Ala | Leu | Ile | Ser | Arg | Ser | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Thr | Phe | Glu | Gly | Arg | Ala | Ile | Tyr | Leu | Leu | Lys | Val | Gly | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Gln | Asn | Lys | Pro | Ala | Ile | Phe | Met | Asp | Cys | Gly | Phe | Pro | Met |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Xaa | Xaa | Trp | Ile | Ser | Pro | Cys | Ile | Xaa | Pro | Val | Gly | Phe | Xaa | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |

1628

Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe
 100 105 110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr
 115 120 125

<210> 1558

<211> 109

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1558

Lys Ala Gly Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val
 1 5 10 15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro
 20 25 30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly
 35 40 45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro
 50 55 60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa
 65 70 75 80

Val Tyr Leu Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile
 85 90 95

1629

Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg
 100 105

<210> 1559

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr
 1 5 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile
 20 25 30

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala
 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val
 50 55 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val
 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser
 85 90 95

Val Ala Gly Ile Thr Phe
 100

<210> 1560

<211> 159

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln
 1 5 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp
 20 25 30

1630

```

Lys  Pro  Arg  Pro  Met  Pro  Met  Asp  Thr  Ser  Val  Tyr  Glu  Ser  Pro  Tyr
      35              40              45

Ser  Asp  Pro  Glu  Glu  Leu  Lys  Asp  Lys  Lys  Leu  Phe  Leu  Lys  Arg  Asp
      50              55              60

Asn  Leu  Leu  Ile  Ala  Asp  Ile  Glu  Leu  Gly  Cys  Gly  Asn  Phe  Gly  Ser
      65              70              75              80

Val  Arg  Gln  Gly  Val  Tyr  Arg  Met  Arg  Lys  Lys  Gln  Ile  Asp  Val  Ala
      85              90              95

Ile  Lys  Val  Leu  Lys  Gln  Gly  Thr  Glu  Lys  Ala  Asp  Thr  Glu  Glu  Met
      100              105              110

Met  Arg  Glu  Ala  Gln  Ile  Met  His  Gln  Leu  Asp  Asn  Pro  Tyr  Ile  Val
      115              120              125

Arg  Leu  Ile  Gly  Val  Cys  Gln  Ala  Glu  Ala  Leu  Met  Leu  Val  Met  Glu
      130              135              140

Met  Xaa  Gly  Ala  Gly  Ala  Ala  Gln  Val  Pro  Gly  Arg  Gln  Glu  Gly
      145              150              155

```

<210> 1561

<211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1561

Arg Ala His Glu Asn Glu Ile Thr Lys Val Arg Lys Val Thr Phe Asn
1 5 10 15

Gly Leu Asn Gln Met Ile Val Ile Glu Leu Gly Thr Asn Pro Leu Lys
20 25 30

Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser
35 40 45

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu
 50 55 60

Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg
 65 70 75 80

Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly
 85 90 95

Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn
 100 105 110

Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg
 115 120 125

Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu
 130 135 140

His Asn Asn His Ile Ser Val Val Gly Ser Lys
 145 150 155

<210> 1562

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1562

Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr
 1 5 10 15

Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu
 20 25 30

Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly
 35 40 45

Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys
 50 55 60

Lys Pro Ile Asp Trp Lys Glu Leu
 65 70

1632

<210> 1563
 <211> 110
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1563
 Arg Thr Arg Gly Arg Leu Leu Gly His Leu Lys Glu Thr Trp Gly His
 1 5 10 15
 Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg Arg Cys Arg His Cys
 20 25 30
 Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser
 35 40 45
 Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn
 50 55 60
 Phe Ala Asn Asp Ala Thr Phe Glu Ile Xaa Lys Cys Asp Leu His Arg
 65 70 75 80
 Leu Glu Glu Ala Leu Leu Ser Gln Gln Cys Ser Pro Arg Glu Asp Gly
 85 90 95
 Leu Lys Tyr Tyr Arg Met Met Xaa Thr Val Pro Glu Trp Asn
 100 105 110

<210> 1564
 <211> 95
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (4)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1633

<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (94)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1564
Leu His Ser Xaa Cys Thr Arg Arg Gly Ser Gly Ser Leu Arg Leu Cys
1 5 10 15
Ser Val Ala Arg Val Gly Gln Arg Arg Met Thr Ser Ala Ala Met Ser
20 25 30
Lys Pro His Ser Glu Xaa Gly Thr Ala Phe Ile Gln Thr Gln Xaa Leu
35 40 45
His Ala Xaa Met Ala Asp Thr Phe Leu Glu His Met Xaa Arg Leu Asp
50 55 60

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr
 65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp
 85 90 95

<210> 1565

<211> 50

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1565

Pro Thr Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly
 1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe
 20 25 30

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His
 35 40 45

Xaa Gly
 50

<210> 1566

<211> 161

1635

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1566

Ala Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg
 1 5 10 15

Thr Gln Gly Thr Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe
 20 25 30

Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys
 35 40 45

Phe Lys Leu Ile Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn
 50 55 60

Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys
 65 70 75 80

Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp
 85 90 95

Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys Lys Arg Asn
 100 105 110

Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln Val Arg Gln
 115 120 125

Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val Gln Thr Asn
 130 135 140

Asp Leu Lys Glu Val Val Asn Lys Leu Ile Xaa Asp Ala Leu Glu Lys
 145 150 155 160

Thr

<210> 1567

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

| | | | |
|---|-----|-----|----|
| 1 | 5 | 10 | 15 |
| Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro | | | |
| 20 | 25 | 30 | |
| Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile | | | |
| 35 | 40 | 45 | |
| Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys | | | |
| 50 | 55 | 60 | |
| Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg | | | |
| 65 | 70 | 75 | 80 |
| Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala | | | |
| 85 | 90 | 95 | |
| Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu | | | |
| 100 | 105 | 110 | |

Lys

<210> 1568

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1568

| |
|---|
| Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys |
| 1 5 10 15 |

| |
|---|
| Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His |
| 20 25 30 |

1637

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser
 35 40 45

<210> 1569

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1569

Gly Thr Ser Glu Arg Xaa Glu His Ala Met Lys Ala Ser Gly Thr Leu
 1 5 10 15

Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys His
 20 25 30

Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val
 35 40 45

Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys
 50 55 60

Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser
 65 70 75 80

Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg
 85 90 95

Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala
 100 105 110

1638

Gly Ala Val Asn Gln Cys Asn Gly
 115 120

<210> 1570

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1570

Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr
 1 5 10 15

Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile
 20 25 30

Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala
 35 40 45

Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly
 50 55 60

Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser
 65 70 75 80

His Gly Leu Arg Lys
 85

<210> 1571

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

1639

<400> 1571

Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr
1 5 10 15

Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr
20 25 30

Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met
35 40 45

Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr
50 55 60

Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn
65 70 75 80

Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile
85 90 95

Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val
100 105 110

Lys Glu Asn Asp Gln Lys Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp
115 120 125

Val Gln Leu Lys Arg Xaa Pro
130 135

<210> 1572

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1640

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1572

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Thr | Pro | Ala | Asn | Xaa | Xaa | Leu | Pro | Trp | Gly | Xaa | Lys | Lys | Xaa |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Arg | Ser | Lys | Ile | Xaa | Ser | Phe | Val | Xaa | Val | Cys | Xaa | Tyr | Asn |
| | | | | 20 | | | | 25 | | | | | | 30 | |

1641

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys
 35 40 45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg
 50 55 60

Xaa Ala Arg Arg Xaa Pro Arg
 65 70

<210> 1573

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met
 1 5 10 15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr
 20 25 30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr
 35 40 45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp
 50 55 60

Gly Lys Xaa Val
 65

<210> 1574

<211> 127

1642

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1574

Gly Arg Met Xaa Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg
1 5 10 15

Ser Ala Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His
20 25 30

Lys Arg Ile His Gly Val Gly Phe Lys Lys Arg Ala Pro Arg Ala Leu
35 40 45

Lys Glu Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val
50 55 60

Arg Ile Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg
65 70 75 80

Asn Val Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu
85 90 95

Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro
100 105 110

Val Thr Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn
115 120 125

<210> 1575

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1643

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1575

Trp Phe Pro Arg Ala Ala Gly Phe Arg His Xaa Xaa Val Gln Ile Arg

1

5

10

15

Ala Xaa Glu Arg Lys Gly Thr Ser Ser Phe Gly Lys Xaa Arg Asn Lys

20

25

30

Thr His Thr Leu Cys Arg Arg Xaa Gly Ser Lys Ala Tyr His Leu Gln

35

40

45

Xaa Ser Thr Cys Gly Lys Phe Gly Tyr Pro Ala Lys Arg Lys Arg Lys

50

55

60

Xaa Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly

65

70

75

80

Arg Xaa Arg His Leu Lys Phe Val Tyr Arg Arg Phe Arg His Gly Phe

1644

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Xaa | Glu | Gly | Thr | Thr | Pro | Lys | Pro | Lys | Arg | Ala | Ala | Val | Ala | Ala | Ser |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Ser | Ser | Ser | | | | | | | | | | | | | |
| | 115 | | | | | | | | | | | | | | |

<210> 1576

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1576

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Arg | Ser | Glu | Met | Thr | Lys | Gly | Thr | Ser | Ser | Phe | Gly | Lys | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Lys | Thr | His | Thr | Leu | Cys | Arg | Arg | Cys | Gly | Ser | Lys | Ala | Tyr |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Leu | Gln | Lys | Ser | Thr | Cys | Gly | Lys | Cys | Gly | Tyr | Pro | Ala | Lys | Arg |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Lys | Tyr | Asn | Trp | Ser | Ala | Lys | Ala | Lys | Arg | Arg | Asn | Thr | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Gly | Arg | Met | Arg | His | Leu | Lys | Ile | Val | Tyr | Arg | Arg | Phe | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gly | Phe | Arg | Glu | Gly | Thr | Thr | Pro | Lys | Pro | Lys | Arg | Ala | Ala | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Phe | Gln | Phe | Ile | Phe | Lys | Asn | Val | Asn | Xaa | Phe | Ser | His | Ala |
| | | | 100 | | | | | 105 | | | | | | 110 | |

1645

Ile Xaa Cys Xaa Gly Val Leu Lys Asn
 115 120

<210> 1577

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1577

Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys
 1 5 10 15

Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser
 20 25 30

Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His
 35 40 45

Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa
 50 55 60

<210> 1578

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

1646

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1578

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Gly | Lys | Gly | Lys | Met | Glu | Lys | Pro | Ser | Pro | Tyr | Pro | Ala | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Cys | Ile | Ile | Tyr | Asn | Glu | Asp | Asn | Gly | Ile | Ile | Lys | Ala | Phe |
| | | | 20 | | | | | | 25 | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | His | Pro | Trp | Asn | Tyr | Ser | Ala | Xaa | Met | Xaa | Ser | Lys | Leu | Lys |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Xaa | Ser | Leu | Leu | Pro | Gly | Gly | Ala | Cys | Gly | Asp | Val | Xaa | Gly |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gly | Xaa | Glu | Met | Ala | Phe | Pro | Gly | Xaa |
| 65 | | | | | | | | 70 | |

<210> 1579

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

1647

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1579

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Xaa | Met | Ala | Cys | Ala | Arg | Pro | Leu | Ile | Ser | Val | Tyr | Ser | Glu | Lys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Ser | Ser | Gly | Lys | Asn | Val | Thr | Leu | Pro | Ala | Val | Phe | Lys | Ala |
| | | 20 | | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ile | Arg | Pro | Asp | Ile | Val | Asn | Phe | Val | His | Thr | Asn | Leu | Arg | Lys |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Arg | Gln | Pro | Tyr | Ala | Val | Ser | Glu | Leu | Ala | Gly | His | Gln | Thr |
| | | 50 | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Glu | Ser | Trp | Gly | Thr | Gly | Arg | Ala | Val | Ala | Arg | Ile | Pro | Arg |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Gly | Gly | Gly | Thr | Xaa | Arg | Ser | Gly | Xaa | Gly | Ala | Phe | Gly | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |

Met Cys

<210> 1580

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

1648

<220>
 <221> SITE
 <222> (19)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (50)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (55)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (71)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1580
 Leu Ser Leu Xaa Gly Lys Lys Lys Lys Arg Leu Arg Val Asp Lys Trp
 1 5 10 15
 Trp Gly Xaa Arg Lys Glu Leu Ala Thr Val Arg Thr Ile Cys Ser His
 20 25 30
 Val Gln Asn Met Ile Lys Gly Val Thr Leu Gly Phe Arg Tyr Lys Met
 35 40 45
 Arg Xaa Val Tyr Ala His Xaa Pro Ile Asn Val Val Ile Gln Glu Xaa
 50 55 60
 Gly Ser Ile Val Glu Ile Xaa Xaa
 65 70

<210> 1581
 <211> 153
 <212> PRT

1649

<213> Homo sapiens

<400> 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser
 1 5 10 15
 Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser
 20 25 30
 Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr
 35 40 45
 Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln
 50 55 60
 Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys
 65 70 75 80
 Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys
 85 90 95
 Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp
 100 105 110
 Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala
 115 120 125
 Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu
 130 135 140
 Ser Ser Thr Ala Ser Ala Leu Val Ala
 145 150

<210> 1582

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala
 1 5 10 15
 Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe
 20 25 30
 His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys
 35 40 45
 Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

50 55 60
 Ile Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu
 65 70 75 80
 Glu Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp
 85 90 95
 Gln Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu
 100 105 110
 Leu Asp Phe Gly Ser Leu Ser Asn Leu Gln Ser Leu Ser Leu Gln Leu
 115 120 125
 Gly

<210> 1583
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1583
 Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg
 1 5 10 15
 Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys
 20 25 30
 Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser
 35 40 45
 Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys
 50 55 60
 Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile
 65 70 75 80
 Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp
 85 90 95
 Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met
 100 105

<210> 1584
 <211> 119
 <212> PRT

1651

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1584

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gln | Arg | Phe | Ile | Lys | Ile | Asp | Gly | Lys | Val | Arg | Thr | Asp | Ile | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Ala | Gly | Phe | Met | Asp | Val | Ile | Ser | Ile | Asp | Lys | Thr | Gly | Glu |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Phe | Arg | Leu | Ile | Tyr | Asp | Thr | Lys | Gly | Arg | Phe | Ala | Val | His | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Pro | Glu | Glu | Ala | Lys | Tyr | Lys | Leu | Cys | Xaa | Val | Arg | Lys | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Gly | Thr | Lys | Gly | Ile | Pro | His | Leu | Val | Thr | His | Asp | Ala | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Arg | Tyr | Pro | Asp | Pro | Leu | Ile | Lys | Val | Asn | Asp | Pro | Phe | Ile |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Xaa | Arg | Leu | Ala | Arg | Leu | Leu | Ile | Ser | Ser | Ile | Ser | Thr | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Cys | Val | Trp | Xaa | Leu |
| | | | | | | 115 |

<210> 1585

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1652

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1585

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Tyr | Ala | Ala | Lys | Arg | Phe | Arg | Lys | Ala | Gln | Cys | Xaa | Ile | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Leu | Thr | Asn | Ser | Met | Met | Met | Xaa | Gly | Arg | Asn | Asn | Gly | Lys |
| | | 20 | | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Met | Thr | Val | Arg | Ile | Val | Xaa | His | Ala | Phe | Glu | Ile | Ile | Arg |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Thr | Gly | Xaa | Glu | Pro | Ser | Ala | Gly | Pro | Gly | Glu | Arg | His | His |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | His | Xaa | Ser | Pro | Gly | Arg | Xaa | His | Xaa | His | Trp | Ala | Arg | Arg | Asp |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |

Cys

1653

<210> 1586

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1586

```

Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr
 1             5             10             15

Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu
          20             25             30

Thr Pro Glu Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile
          35             40             45

Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu
          50             55             60

Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser
 65             70             75             80

Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys
          85             90             95

Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys
          100            105            110

```

<210> 1587

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1587

```

Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe
 1             5             10             15

```

1654

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val
20 25 30

Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala
35 40 45

Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg
50 55 60

His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile
65 70 75 80

Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg
85 90 95

Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala
100 105 110

Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn
115 120 125

<210> 1588

<211> 38

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

1655

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1588

Cys Met Leu Xaa Leu Val Leu Xaa Leu Leu Ser Ser Ser Ser Ala Glu
1 5 10 15

Glu Tyr Xaa Gly Leu Ser Ala Asn Gln Cys Ala Val Xaa Ala Lys Asp
20 25 30

Xaa Val Xaa Cys Gly Tyr
35

<210> 1589

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1589

Gly Thr Ala Thr Gln Gly Leu Ser Pro Val His Thr Pro Gly Asp Gly
1 5 10 15

Arg Leu His Lys Ala Val Ser Val Gly Pro Arg Val His Ile Ile Glu
20 25 30

Glu Leu Gln Ile Phe Ser Ser Gly Gln Pro Val Ala Glu Ser Ala Pro
35 40 45

Gly Thr Pro Thr Gly Gly Leu
50 55

<210> 1590

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1590

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala

1656

1 5 10 15
Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly
 20 25 30
Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu
 35 40 45
Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile
 50 55 60
Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg
 65 70 75 80
Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu
 85 90

<210> 1591

<211> 139

<212> PRT

<213> Homo sapiens.

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1657

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1591

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Gly | Phe | Xaa | Ile | Thr | Xaa | Gly | Xaa | Asp | Glu | Gly | Lys | Leu | Val |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Gly | Asp | Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | His | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Asp | Val | Ser | Gln | Lys | Val | Leu | Arg | Ser | Gln | Thr | Trp | Val | Pro |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ala | Ser | Glu | Ala | Xaa | Ser | Arg | His | Arg | Gly | Lys | Val | Lys |
| | | | 50 | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Pro | Lys | Asp | Asp | Pro | Ser | Lys | Pro | Val | His | Leu | Thr | Ala | Phe |
| | | | 65 | | | | 70 | | | | 75 | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Tyr | Lys | Ala | Gly | Met | Thr | His | Ile | Val | Arg | Glu | Val | Asp | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ser | Lys | Val | Asn | Lys | Lys | Glu | Gly | Gly | Gly | Gly | Cys | Asp | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Xaa | Asp | Thr | Xaa | His | Gly | Gly | Leu | Trp | Ala | Leu | Xaa | Ala | Thr | Leu |
| | | | 115 | | | | | 120 | | | | 125 | | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asn | Pro | Arg | Xaa | Leu | Arg | Asn | Phe | Lys | Asn |
| | | | 130 | | | | 135 | | | |

<210> 1592

<211> 42

<212> PRT

1658

<213> Homo sapiens

<400> 1592

Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe
1 5 10 15

Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met
20 25 30

Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys
35 40

<210> 1593

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1659

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1593

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Pro | Arg | Ala | Gly | Ser | Leu | Ser | Leu | Ala | Gln | Arg | Arg | Gly |
| 1 | | | | 5 | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Lys | Thr | Tyr | Thr | Val | Gly | Xaa | Glu | Glu | Cys | Thr | Val | Xaa | Pro |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ser | Ile | Pro | Cys | Lys | Leu | Gln | Ser | Gly | Thr | His | Cys | Xaa | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Gln | Leu | Leu | Gln | Gly | Xaa | Glu | Lys | Gly | Xaa | Gln | Xaa | Arg | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Cys | Leu | Pro | Arg | Glu | Pro | Gly | Leu | Gly | Thr | Trp | Gln | Xaa | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | |
|-----|-----|-----|-----|-----|
| Arg | Ser | Gln | Ile | Ala |
| | | | | 85 |

<210> 1594

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1660

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1594

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Arg | Gly | Ala | Gln | Arg | Asp | Thr | Arg | Glu | Pro | Thr | Met | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Glu | Pro | Leu | Ala | Ser | Gly | Ile | Leu | Leu | Leu | Leu | Trp | Leu | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Arg | Ala | Cys | Thr | Cys | Val | Pro | Pro | His | Pro | Gln | Thr | Ala | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Ser | Asp | Leu | Val | Ile | Arg | Ala | Lys | Phe | Val | Gly | Thr | Pro | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Gln | Thr | Thr | Leu | Tyr | Gln | Arg | Tyr | Glu | Ile | Lys | Met | Thr | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Lys | Gly | Phe | Gln | Ala | Leu | Gly | Asp | Ala | Ala | Asp | Ile | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Thr | Pro | Ala | Met | Glu | Ser | Val | Cys | Xaa | Tyr | Phe | His | Arg | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Asn | Arg | Ser | Glu | Glu | Phe | Leu | Ile | Xaa | Gly | Lys | Leu | Gln | Asp | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | His | Ile | Thr | Thr | Cys | Xaa | Phe | Val | Ala | Pro | Trp | Asn | Ser | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1661

Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa
 145 150 155 160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys
 165 170 175

Arg Val Gly Thr His Cys Leu
 180

<210> 1595

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1595

Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly Ser Tyr Gln
 1 5 10 15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu
 20 25 30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys
 35 40 45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr
 50 55 60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln
 65 70 75 80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe
 85 90 95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln
 100 105 110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly
 115 120 125

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val
 130 135 140

Thr Glu His Leu Gly Leu Xaa Thr Leu
 145 150

<210> 1596

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1596

Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly
 1 5 10 15

Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly
 20 25 30

Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala
 35 40 45

Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys
 50 55 60

Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe
 65 70 75 80

Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly
 85 90 95

Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg
 100 105 110

<210> 1597

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

1663

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597
Ile Phe Glu Asp Ser Asp Ser Leu Arg Leu Arg Arg Asp Val Leu Pro
1 5 10 15
Ala Ala Xaa Val Gln Ala Ala Leu Pro Ala Thr Ser Cys Val Pro His
20 25 30
Ala Lys Val Pro Lys Ser His Val His Pro Arg Ser Ala Leu Ser Leu
35 40 45
Thr Cys Leu Leu Leu Val His Leu Ser Ile Ala His Leu His Leu Ala
50 55 60
Ser Ile Asn Ala Leu Leu Xaa Gln Pro Tyr His Pro Gly Ser Xaa Xaa
65 70 75 80
Ser Pro

<210> 1598
<211> 52
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids

1664

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1598
Xaa Lys Xaa Gly Arg Asn Lys Ala Arg Pro Leu Thr Ser Leu Arg Xaa
1 5 10 15
Thr Phe Xaa Ala Thr Phe Cys Pro Val Xaa Gly Thr Tyr Ile Leu Asn
20 25 30
Asp Cys Pro Xaa Thr His Ser Gly Ile Phe Phe Phe Leu Lys Xaa Xaa
35 40 45
Xaa Lys Ala Phe
50

1665

<210> 1599
<211> 32
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1599
Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu
1 5 10 15

Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe
20 25 30

<210> 1600
<211> 19
<212> PRT
<213> Homo sapiens

1666

<220>
 <221> SITE
 <222> (12)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (15)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600
 Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe
 1 5 10 15

Phe Lys Lys

<210> 1601
 <211> 22
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (2)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (20)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1601
 Arg Xaa Asn Arg Val Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe
 1 5 10 15

Phe Phe Phe Xaa Pro Xaa

20

1667

<210> 1602

<211> 104

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1602

Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro
 1 5 10 15

Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val
 20 25 30

Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro
 35 40 45

Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe
 50 55 60

Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe
 65 70 75 80

Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr
 85 90 95

Phe Xaa Thr Asn Ser Gln Ser Glu
 100

<210> 1603

<211> 86

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

1668

<220>
 <221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (63)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (73)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (80)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (81)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1603
 Phe Leu Met Leu Ser Phe Met Gly Ile Val Thr Phe Leu Phe Ser Lys
 1 5 10 15
 Ser His Cys Trp Asn His Gln Gly Cys Gly Met Ser Leu Xaa Val Leu
 20 25 30
 Phe Met Gln Val Thr Val Thr Phe Ala Ile Met Ala Xaa Phe Glu Thr
 35 40 45
 Leu Ile Met Cys Phe Tyr Phe Phe Ile Pro Val Lys Met Xaa Xaa Lys
 50 55 60
 Arg Lys Lys Val Val Ile Ala Pro Xaa Ile Ser Gly Ser Lys Leu Xaa
 65 70 75 80
 Xaa Lys Phe Pro Lys Lys
 85

<210> 1604
 <211> 34
 <212> PRT
 <213> Homo sapiens

1669

<400> 1604

Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro

1

5

10

15

Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser

20

25

30

Val Asp

<210> 1605

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1605

Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser

1

5

10

15

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser
20 25 30

Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa
35 40 45

Ile Thr Leu Gly Lys
50

<210> 1606

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

1671

<400> 1606

Asp Ala Trp Ala Asp Ala Trp Gly Lys Val Ser Ser Ser Leu Xaa Ser
1 5 10 15
Xaa Ile Cys Xaa Leu Xaa Xaa Arg Lys Val Arg Xaa Gly Gln Xaa Met
20 25 30

<210> 1607

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1607

Leu Ile Met Asp Thr Ile Leu Asn Lys Xaa Ile Gln Val Lys Pro Val
1 5 10 15
Lys Glu Lys Glu Ile Lys Val Ser Gly Ser Cys Xaa Ser Xaa Val
20 25 30

<210> 1608

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

1673

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1608

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Gln | Gly | Ile | Arg | His | Pro | His | Ile | Val | Gln | Leu | Lys | Asp | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Cys | Glu | Leu | Gly | Ala | Gly | Xaa | Leu | Pro | Lys | Gly | Val | Glu | Lys | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Phe | Arg | Pro | Xaa | Leu | Cys | Leu | Leu | Lys | Gln | Gln | Leu | Gly | Thr |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Glu | Pro | Ile | Asn | Leu | Xaa | Phe | Asn | Pro | Leu | Gly | Ser | Phe | Phe | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Gly | Gly | Gly | Arg | Lys | Pro | Trp | Xaa | Phe | Xaa | Xaa | Phe | Xaa | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Asn | Pro | Gly | Gln | Xaa | Asn | Phe | Leu | Gly | Pro | Leu | Lys | Glu | Lys |
| | | | | 85 | | | | | | 90 | | | | 95 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Phe | Gly | Pro | Xaa | Xaa | Xaa | Xaa | Leu | Ser | Xaa |
| | | | | 100 | | | | 105 | | |

<210> 1609

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1674

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1609

Arg Gln Thr Ser Thr Ala Lys Leu Gln Lys Gly Gly Phe Cys Ser Arg
1 5 10 15

Arg Lys Glu Asp Val Tyr Leu Gln Gly Ala Lys Gln Gly Glu Leu Gly
20 25 30

Ser Ser Cys Leu Arg Pro Asn Leu His Asp Asp Leu Gln Ala Arg Val
35 40 45

Phe Lys Xaa Ser Gly Lys Phe Pro Gly Lys Pro Glu Val Lys Gly Gln
50 55 60

Asn Cys Lys Ser Val Glu Ile Gly
65 70

<210> 1610

<211> 77

<212> PRT

<213> Homo sapiens

<400> 1610

Leu Tyr Arg Gly Ser Val Gln Gly Arg Val Glu Leu Leu Ser Glu Gly
1 5 10 15

Ser Leu Gly Gly Pro Leu Arg Pro Gly Pro Asp Pro Val Leu Gln Gly
20 25 30

Leu Ser Gln Gly Gln Val His Gly Glu Thr Met Gly Cys Leu Ser Asp
35 40 45

Thr Asp Leu Ala Leu Leu Ser Pro Pro Ile Arg Leu Ser Phe Leu Cys
50 55 60

Ser Glu Cys Leu Gln Gly Leu Asp Pro Gly Lys Glu Phe
65 70 75

<210> 1611

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1675

<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1611
Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa
1 5 10 15

1676

Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile
20 25 30

Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp
35 40 45

Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys
50 55 60

Phe Xaa Asp Val Lys Ile Xaa Tyr
65 70

<210> 1612

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1677

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1612

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Ser | Glu | Met | Leu | Cys | Asn | Leu | Leu | Xaa | Gln | Leu | Lys | His | Xaa |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Arg | Gly | Arg | Asn | Tyr | Lys | Xaa | Cys | Ser | Asn | Leu | Phe | Trp | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Met | Tyr | Leu | Trp | Val | Gln | Ala | Leu | Phe | Gly | Gly | Phe | Xaa | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Xaa | Xaa | Lys | Val | Xaa | Leu | Leu | Ile | Lys | Lys | Arg | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | |

<210> 1613

<211> 22

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1613

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Xaa | Ser | Xaa | Thr | Ala | Gly | Asp | Arg | Xaa | Xaa | Thr | Ser | Gly | Ser |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1678

| 1 | 5 | 10 | 15 |
|---|---|----|----|
| Pro Gly Leu Gln Glu Phe | | | |
| 20 | | | |
| | | | |
| <210> 1614 | | | |
| <211> 85 | | | |
| <212> PRT | | | |
| <213> Homo sapiens | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (5) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (6) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (14) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (15) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (20) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (46) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (51) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (63) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |

1679

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1614

Asp Gly Gly Phe Xaa Xaa Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe
 1 5 10 15

Phe Phe Tyr Xaa Trp Val Ile Ser Thr Cys Phe Ile Pro Ala Ile Lys
 20 25 30

Ile Ile Lys Asn Ile Ser Asn Tyr Tyr Thr His Thr Lys Xaa Val Gln
 35 40 45

Ser Leu Xaa Leu Pro Pro Thr Pro Arg Gly Lys Asn Cys Phe Xaa Leu
 50 55 60

Trp Glu Val Val Ser Glu Thr Arg Gly Gln Xaa Thr Gln Xaa, Arg Leu
 65 70 75 80

Gly Gly Xaa Arg Xaa
 85

<210> 1615

<211> 85

<212> PRT

<213> Homo sapiens

<400> 1615

Tyr Ala Val Pro Cys Ser Gly Ile Gln Gly Arg Phe Ser Pro Leu Ser
 1 5 10 15

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys
 20 25 30
 Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser Lys Trp Asp Pro Leu
 35 40 45
 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser
 50 55 60
 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn
 65 70 75 80
 Trp Trp Pro Pro Gln
 85

<210> 1616

<211> 29

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1616

Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

1681

Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa
 20 25

<210> 1617

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1617

Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe
 1 5 10 15

Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln
 20 25 30

Ile Trp Ala Xaa Cys
 35

<210> 1618

<211> 22

<212> PRT

<213> Homo sapiens

1682

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1618

Gly Xaa Gly Phe Xaa Pro Ser Pro Ser Cys Phe Pro Gln Cys Leu Lys
1 5 10 15

Xaa Leu Asp Gly Leu Xaa
20

<210> 1619

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1619

Gln Ser Ile Ser Leu Asn Arg Asp Gly Val Glu Glu Leu Lys Val Gly
1 5 10 15

Ile Cys Ser Leu Met Thr Thr Met Phe Thr Ile Cys Cys Gly Leu Val
20 25 30

Gly Ala Leu Arg Gln Glu Asn His Val Glu Pro Thr Gly Ser Arg Pro
35 40 45

Ala Trp Glu Thr
50

<210> 1620

1683

<211> 52
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1620
Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg
1 5 10 15

Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His
20 25 30

Pro Asp Xaa Ala Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys
35 40 45

Ser Tyr Val Ile
50

<210> 1621
<211> 113
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (108)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1621
Leu Phe Pro Ala Pro Ala Pro Pro Ala Pro Ala Phe Ala Pro Pro

1684

1 5 10 15
 Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro
 20 25 30
 Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr
 35 40 45
 Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro
 50 55 60
 Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala
 65 70 75 80
 Ile Ile Leu Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu
 85 90 95
 Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa
 100 105 110

 Ile

<210> 1622

<211> 21

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1622

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu
 1 5 10 15

Phe Val Leu Tyr Gln
 20

<210> 1623

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1685

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1623

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Thr | Ser | Cys | Phe | Xaa | Leu | Asn | Xaa | Met | Ile | His | Phe | Ile | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | Val | Ile | Lys | Tyr | Xaa | Val | Lys | Tyr | Leu | Leu | Xaa | Trp | Thr | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Cys | Lys | Leu | Pro | Phe | Xaa | Xaa |
| | | 35 | | | | 40 | |

<210> 1624

<211> 95

<212> PRT

<213> Homo sapiens

<220>

1686

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1624

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | His | Pro | Xaa | Leu | Ala | Ser | Gln | Val | Ala | Gly | His | Tyr | Arg | Arg | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Arg | Pro | Arg | Leu | Lys | Xaa | Ala | Tyr | Ser | Lys | Lys | Gln | Phe | Gln |
| | | | 20 | | | | 25 | | | | | | 30 | | |

1687

Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly
 35 40 45

Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu
 50 55 60

Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg
 65 70 75 80

Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Gly Xaa
 85 90 95

<210> 1625

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa
 1 5 10 15

Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg
 20 25 30

Leu Leu Gly Leu Ile Thr Ala Pro
 35 40

<210> 1626

<211> 26

<212> PRT

<213> Homo sapiens

1688

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1626
Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala
1 5 10 15
Arg Leu His Leu Lys Lys Lys Lys Xaa
20 25

<210> 1627
<211> 171
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (121)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1689

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1627

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Gln | Ala | Ser | Glu | Asn | Gln | Pro | Cys | Ser | Arg | His | Ala | Arg | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ser | Ser | Leu | Phe | Pro | Leu | Pro | Ala | Gln | Pro | Ser | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ala | Gly | Lys | Ala | Gly | Thr | His | Ser | Gly | Cys | Leu | Pro | Pro | Gly |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Glu | Arg | Glu | Gly | Gly | Trp | Val | Gly | Xaa | Gly | Leu | Pro | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Thr | Leu | Pro | Gly | Pro | Arg | Ile | Ala | Pro | Gly | Pro | Lys | Pro | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Pro | Gly | Thr | Lys | Leu | Arg | Xaa | Ser | Ala | Gly | Arg | Ser | Tyr | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Pro | Pro | Pro | Leu | Leu | Val | Pro | Pro | Pro | Gly | Arg | Leu | Ala | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ser | Asp | Thr | Gly | Xaa | Xaa | Lys | Xaa | Xaa | Xaa | Glu | Pro | Trp | Tyr | Pro |
| | | 115 | | | | | 120 | | | | | | 125 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Gly | Pro | Gly | Pro | Xaa | Leu | Gly | Pro | Asn | Pro | Ser | Ser | Val | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Val | Trp | Asn | Lys | Cys | Cys | Leu | Ser | Xaa | Gln | Gln | Lys | Lys | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Gly | Gly | Arg | Phe | Arg | Gly | Phe | Lys | Ala |
| | | | 165 | | | | | | 170 | |

1690

<210> 1628
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (93)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (110)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (111)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (117)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1628
 Arg Pro Ala Arg Ser Pro Ala Glu Val Gly Ser Arg Gly Leu Ser Ser
 1 5 10 15

Pro Pro Arg Ala His His Arg Pro Val Ser Pro Ala Ala Pro Gly Arg
 20 25 30

Trp Ser Thr Ser Ala Arg Val Arg Thr Arg Lys Met Val Asn Tyr Ala
 35 40 45

Trp Ala Gly Arg Xaa Arg Arg Lys Leu Trp Trp Arg Ser Val Ala Val
 50 55 60

Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr Arg Gly Glu Arg Leu
 65 70 75 80

Asn Arg Thr Ile Leu Val Ser Trp Phe Pro Ser Glu Xaa Phe Pro Gln
 85 90 95

1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly
 100 105 110

Ile Phe Ile Arg Xaa Lys Arg Ile
 115 120

<210> 1629

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys
 1 5 10 15

Cys Phe Val Lys Arg Lys Arg Lys Lys Lys Pro Lys Leu Val Arg Val
 20 25 30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val
 35 40 45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu
 50 55 60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro
 65 70 75 80

Gly Arg Gly Cys Arg Lys
 85

<210> 1630

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys
 1 5 10 15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser
 20 25 30

1692

Glu Phe Phe
35

<210> 1631
<211> 40
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1631
His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro
1 5 10 15

Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln
20 25 30

Ala Lys Leu Ala Leu Thr Met Pro
35 40

<210> 1632
<211> 97
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

1694

<400> 1632

Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro
1 5 10 15

Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile
20 25 30

Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly
35 40 45

Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly
50 55 60

Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly
65 70 75 80

Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp
85 90 95

Gly

<210> 1633

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1695

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1633

Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro Phe Xaa Arg
 20 25 30

Ile Gln Xaa Tyr Val Xaa Xaa Xaa Ala Thr Ser
 35 40

<210> 1634

<211> 88

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1634

Ala Arg Ala Ala Leu Ser Ala Thr Lys Thr Cys Arg Pro Ala Phe Arg
 1 5 10 15

Gly Ala Ser Ala Ala Pro Arg Gly Gly Gly Pro Ala Arg Ser Pro Gly
 20 25 30

Arg Val Leu Gly Arg His Ala Ala Gly Ser Leu Ala Arg Leu Val Gly
 35 40 45

Arg Ser Arg Gly Phe Trp Leu Leu Gly Gly Glu Val Lys Ser Phe Cys
 50 55 60

Arg Cys Trp Gly Arg Arg Thr Arg Arg Glu Arg Lys Lys Lys Lys Lys
 65 70 75 80

Lys Xaa Leu Gly Lys Tyr Phe Xaa
 85

1696

<210> 1635

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1635

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | His | Ser | Gly | Phe | Cys | Ser | Pro | Thr | Asp | Glu | Asp | Arg | Cys | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Ala | Asp | Gly | Asn | His | Pro | Val | Glu | Val | His | Leu | Arg | Ser | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Asp | Ala | Arg | Ala | Met | Thr | Gly | Pro | Ala | Gly | Val | Ala | Pro | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Gln | Pro | Trp | Ser | Ser | His | Arg | Arg | Lys | Pro | Leu | Arg | Ser | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Arg | Arg | Lys | Xaa | Lys | Trp | Gln | Lys | Gln | Lys | Glu | Pro | Gln | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Gly | Asp | His | Ser | Met | His | Phe | Leu | Pro | Ala | Ala | Thr | Gln | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Glu | Leu | Leu | Xaa | Asn | Leu | Met |
| | | | 100 | | | | 105 | |

<210> 1636

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1697

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1636

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Pro | Arg | Xaa | Xaa | Gly | Thr | Gly | Ser | Gly | Pro | Pro | Gly | Pro | Gly |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Ser | His | Gly | Gly | Gly | Ala | Pro | Val | Ser | Arg | Ser | Gly | Thr | Gly |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Asp | Gly | Arg | Glu | Ser | Arg | Ala | Thr | Val | Val | Val | Xaa | Cys |
| | | 35 | | | | 40 | | | | | | 45 | | |

<210> 1637

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

1698

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1637

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Pro | Pro | Glu | Gly | Pro | Ala | Thr | Ser | Pro | Leu | Thr | Asn | Ser | Xaa |
| 1 | | | | 5 | | | | 10 | | | | 15 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Pro | Xaa | Ser | Xaa | Gly | Thr | Ala | Ala | Ala | Thr | Gln | Arg | Arg | Xaa | Ser |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Gly | Gly | Arg | Xaa | Thr | Cys | Gly | Pro | Ala | Gly | Ala | Gly | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Pro | Pro | Arg | Ala | Xaa |
| | | 50 | | | | 55 |

<210> 1638

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1699

<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1700

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1638

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Xaa | His | Ala | Thr | Xaa | Tyr | Arg | Gly | Xaa | Phe | Cys | Xaa | Arg | Arg |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Xaa | Xaa | Leu | His | Ser | Ala | Asn | Val | Thr | Thr | Xaa | Xaa | Leu | Leu |
| | | | | 20 | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Xaa | Phe | Tyr | Xaa | Xaa | Arg | Xaa | Xaa | Ala | Xaa | Val | Asn | Ile | Ser |
| | | | | 35 | | | 40 | | | | | 45 | | | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Pro | His | Cys | Pro | Ile |
| | 50 | | | | 55 | |

<210> 1639

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1639

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Pro | Gln | Asn | Pro | Leu | Asn | Pro | Leu | Val | Asn | Leu | Thr | Xaa | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

1701

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
 20 25 30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
 35 40 45

Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr
 50 55

<210> 1640

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Pro Xaa
 20 25 30

Gly Xaa Pro Xaa Pro
 35

<210> 1641

<211> 41

1702

<212> PRT

<213> Homo sapiens

<400> 1641

Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp
1 5 10 15

Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp
20 25 30

Leu Cys Arg Val Leu Thr Cys Gln Gly
35 40

<210> 1642

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1703

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1642

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Ala | Ala | Ser | Tyr | Leu | Met | Thr | Leu | Met | Glu | Pro | Leu | Ser | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Xaa | Xaa | Leu | Ser | Pro | Pro | Leu | Xaa | Xaa | Ser | Lys | Glu | Asn | His |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Asp | Ala | Arg | Ser | Cys | Leu | Xaa | Ser | Xaa | Pro | Lys | Cys | Ser | Cys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Pro | Gly | Ile | Ser | Leu | Pro | Arg | Asp | Lys | Ser | Ala | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | His | Asp | Ser | Leu | Cys | Phe | Gln | Asn | Pro | Gly | Leu | Phe | Cys | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Phe | Leu | Gly | Pro | Ala | Ser | Cys | Val | Pro | Leu | Lys | Gly | Xaa | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Ala Lys Thr

<210> 1643

<211> 42

<212> PRT

1704

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1643

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Pro | Xaa | Asn | Leu | Gly | Lys | Ala | Arg | Leu | Gln | Val | Pro | Val | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Arg | Val | Asp | Leu | Arg | Val | Phe | Ile | Tyr | Ile | Asp | Ile | Tyr | Ile |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Tyr | Arg | Tyr | Ile | Tyr | Arg | Tyr | Ile |
| | | 35 | | | | | 40 | | |

<210> 1644

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1705

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1644

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Gly | Val | Arg | Leu | Ala | Gln | Val | Pro | Xaa | His | Leu | Thr | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | His | Pro | His | Pro | Val | Phe | His | Xaa | Arg | Leu | Lys | Ala | Thr | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Met | Xaa | His | Thr | Glu | Ala | Xaa | Met | Xaa | Xaa | Asn | His | Leu |
| | | 35 | | | | | | 40 | | | | 45 | |

<210> 1645

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1645

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Arg | Leu | Lys | Pro | Ile | Phe | Ser | Pro | Phe | Phe | Leu | Leu | Phe | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Ala | His | Ile | Val | Pro | Leu | Phe | Tyr | Glu | Pro | Gln | Phe | Ser | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Leu | Lys | Lys | Lys | Ser | Ser | Leu | Asn | Ile | Ala | Phe | Arg | Lys | Leu |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Leu | Asp | Lys | Lys | Ser | Tyr | Thr | Leu | Lys | Lys | Lys | Lys | Thr | Phe |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | |
|-----|-----|-----|-----|-----|
| Ser | Arg | Lys | Ile | Tyr |
| | | | | 65 |

<210> 1646

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

1706

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

Ile Ile Cys Phe Val Leu Ser Phe Ile Tyr His Phe Phe Leu Tyr Lys
1 5 10 15

Ser Ile Ile Ser Arg Phe Leu Tyr Tyr Met Ile Asp Ile Asn Trp Val
20 25 30

Ile Ser Ser Arg Gln Phe Val Phe Ser Xaa Xaa Pro Pro Ser Thr Val
35 40 45

Ser Gln Arg Pro Asp Xaa Val Gly Lys Val Phe Phe Leu Arg Ile Val
50 55 60

Lys Gly Ser Xaa Gln Leu Gly Leu Ile Lys Ala Xaa Xaa Pro
65 70 75

<210> 1647

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1647

1707

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser
1 5 10 15

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
20 25 30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
35 40 45

Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr
50 55

<210> 1648

<211> 59

<212> PRT

<213> Homo sapiens

<400> 1648

Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg
1 5 10 15

Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu
20 25 30

Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg
35 40 45

Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg
50 55

<210> 1649

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1708

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1649

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | Pro | Pro | Val | Pro | Trp | Gly | Gly | Pro | Xaa | Arg | Glu | Gly | Glu | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | Thr | Lys | Ala | Asp | Ala | Pro | Leu | Val | Gly | Gly | Xaa | Trp | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Glu | Gly | Cys | Ala | Gly | Leu | Pro | Leu | Arg | Ala | Ala | Gln | Thr | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Cys | Gly | Gly | Xaa | Ala | Arg | Trp | Val | Arg | Ala | Gln | Glu | Val | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Xaa | Thr | Val | Ala | Asp | Xaa | Leu | Pro | Arg | Val | Pro | Gly | Ser | Ser | Leu |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Trp | Tyr | Ala | Xaa | Asn | Xaa | Trp | Phe | Pro | His | Pro | Xaa | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Leu | Phe | Pro | Trp | Ile | Ser | Gln | Ala | Lys | Leu | Gly | Leu |
| | | 100 | | | | | | 105 | | | | | 110 |

1709

<210> 1650
<211> 74
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1650
Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro
1 5 10 15
Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr
20 25 30
Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala
35 40 45
Gln Gly Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu
50 55 60
Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro
65 70

<210> 1651
<211> 83
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1710

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1651

Asn Lys Gly Gly Gly Arg Met Met Thr Tyr Pro Glu Val Leu Pro Leu

1

5

10

15

Thr Ala Arg Thr Gly Ala Cys Ser Val Pro Trp Glu His Xaa Ala Gln

20

25

30

Leu Ser Gly Val Gln Ala Val Gly Ser Phe Pro Asn Xaa Ser Ile Ser

35

40

45

Xaa Pro Xaa Xaa Leu Lys Pro Val Gly Gln Ile Ser Lys Xaa Leu Xaa

50

55

60

Xaa Arg Xaa Pro Phe Thr Asn Pro Arg Phe Cys Gly Gln Cys Pro Lys

65

70

75

80

Gly Val Gly

1711

<210> 1652
<211> 90
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652
Phe Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu

1

5

10

15

1712

Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser
 20 25 30
 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile
 35 40 45
 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser
 50 55 60
 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser
 65 70 75 80
 Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe
 85 90

<210> 1653

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1653

Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser
 1 5 10 15

1713

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe
20 25 30

Phe Leu Phe Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa
35 40 45

Xaa Ala Ile Lys Lys Lys Lys
50 55

<210> 1654

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

1714

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1654

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Xaa | Ala | Thr | Asn | Leu | Pro | Ser | Leu | Val | Ile | Ala | Xaa | Cys | Ser | Xaa |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Ser | Leu | Val | Pro | Leu | Leu | Ile | Trp | Pro | Gln | Lys | Pro | Pro | Asn |
| | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Trp | Leu | Ile | Leu | Thr | Val | Xaa | Pro | Lys | Lys | Gly | Thr | Xaa | Ser |
| | | 35 | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Pro | Leu | Xaa | Lys | Lys | Thr | Leu | Xaa | Lys | Xaa | Asn |
| | 50 | | | | | 55 | | | | | 60 | |

<210> 1655

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1655

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Val | Leu | Gln | Thr | Ala | Arg | Arg | Ala | Arg | Ser | Ala | Cys | Arg | Leu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

Xaa Xaa Xaa Xaa

1715

20

<210> 1656
<211> 24
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1656
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe
1 5 10 15

Xaa Asn Xaa Lys Arg Val Leu Leu
20

<210> 1657
<211> 34
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)

1716

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Ala | Cys | Leu | Pro | Ala | Thr | Glu | Xaa | Ser | Gln | His | His | Glu | Gly |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Leu | Leu | Ser | Pro | Leu | Pro | Gly | Arg | Glu | Gly | Leu | Gly | Xaa | Pro |
| | | | 20 | | | | | 25 | | | | | | 30 | |

Ser Xaa

<210> 1658

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1658

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Lys | Gln | Tyr | Leu | Thr | Asn | Pro | Gln | Val | Leu | Asn | Tyr | Gln | Thr | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Lys | Asn | Phe | Gly | Trp | Gly | Asp | Leu | Gly | Ala | Glu | Pro | Asn | Leu | Arg |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | His | Ala | Lys | Thr | Ser | Pro | Val | Lys | Ala | Asn | Tyr | Tyr | Thr | Gln |
| | | | 35 | | | | | 40 | | | | | | 45 | |

| | | |
|-----|-----|-----|
| Leu | Ile | Gln |
| | | 50 |

<210> 1659

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1717

<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (95)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

1719

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1659

Ser Thr His Ala Ser Gly His Ser His Ser Gln Ala Ser Leu Ala Gly
 1 5 10 15

Ser Arg Val Ala Arg Val Arg Cys Leu Leu Gln Leu Gln Asp Asp Arg
 20 25 30

Pro Glu Asp Ala Leu Leu Leu Phe Leu Pro Gln Pro Arg Gln Glu Ala
 35 40 45

Thr Xaa Pro Gln Xaa Pro Ser Arg Pro Ser Arg Gly Pro Xaa Trp Leu
 50 55 60

Gly Leu Leu Lys Lys Ala Glu Xaa Gly Gly His Pro Ser Gln Glu Xaa
 65 70 75 80

Pro Gly Trp Xaa Gly Glu Xaa Xaa Glu Arg Arg Pro Pro Trp Xaa Leu
 85 90 95

Asn Xaa Arg Thr Phe Trp Asn Arg Ile Pro Glu Glu Gln Arg Ala Arg
 100 105 110

Gly Pro Xaa Leu Xaa Xaa Arg Gly Pro Xaa Xaa Val Xaa Pro Trp Gly
 115 120 125

Phe Leu Glu Xaa Xaa Pro Gly Lys Glu Ser Xaa Leu Arg Gly Gly Xaa
 130 135 140

Phe Arg Gly Lys Xaa Leu Phe Leu Ile Lys Ala Lys Leu Gly Ile Xaa
 145 150 155 160

Phe Xaa Lys Arg Lys Gly
 165

<210> 1660

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

1720

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

1721

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1660

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Gly | Leu | Gln | Glu | Phe | Gly | Xaa | Arg | Gly | Xaa | Arg | Asn | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Tyr | Ala | Xaa | Xaa | His | His | Xaa | Xaa | Pro | His | Arg | Xaa | Ser | Ile | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | His | Ala | Leu | His | Ser | Xaa | Arg | Gly | Asp | Asp | Ala | Xaa | Leu | Thr | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Xaa | Xaa | Pro | Pro | Met | Val | Leu | Glu | Pro | Thr | Ser | Thr | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | |
|-----|-----|-----|-----|
| His | Xaa | Val | Asp |
| | 65 | | |

<210> 1661

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1661

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Ala | Asp | Thr | Leu | Met | Asn | Asp | Gln | Gln | Gln | Leu | Ser | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Thr | Leu | Ile | Phe | Glu | Phe | Thr | Cys | Trp | Val | Pro | Gly | Ser | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Lys | Arg | Pro | Leu | Phe | Ile | Lys | Arg | Gly | Pro | Pro | Phe | Xaa | Xaa |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1722

35

40

45

Pro Lys Asp Phe Leu Xaa Phe Gln Ile Gly Lys Gly Thr
 50 55 60

<210> 1662

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1662

Thr Val Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Asn Leu
 1 5 10 15

Glu Val Xaa Gly Ile Xaa Asn Leu Asp Ile Xaa Phe Gly Thr Ser Asn
 20 25 30

Pro His Ser Pro Thr His Ala Gly Gly Cys Ala Cys Arg Thr Xaa Leu
 35 40 45

Thr Asp Trp Trp Ile Leu
 50

1723

<210> 1663

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1663

Ala Arg Glu Lys Leu Cys Val Arg Gly Arg Gly Leu Phe Arg Cys Arg
1 5 10 15

Val Ser Ser Ser Cys Thr Leu Phe Lys Ser Leu His Trp Arg Asn Ser
20 25 30

Ala Ile Thr Ser Ser Leu Val Ala Glu Gly Arg Gly Asn Ile His Leu
35 40 45

Phe Met Pro Val Cys Cys Met Gln Ala Phe Trp Leu Pro Thr Leu Gln
50 55 60

Gln Asn Asn Cys Thr Asn Ser Leu Val Pro Ile Pro Pro Thr Glu Ser
65 70 75 80

Pro Gly Ala Thr Val Phe Phe Ala Leu His Cys Lys Glu Arg Asp
85 90 95

<210> 1664

<211> 100

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

1724

<400> 1664

Val Asn Gln Glu Thr Thr Pro Val Asp Cys Gly Ala Leu Glu Gly Leu
1 5 10 15

Val Gly Val Asn Leu Pro Thr Pro Tyr Asn Cys Gly Arg Ile Gln Lys
20 25 30

Ser Leu Ser Phe Tyr Ile His Ser Leu Asp Val Ile Gly Pro Leu Pro
35 40 45

Pro Ile Ser Leu Arg Cys His Ala Ser Met Gly Ser Gly Val Val Arg
50 55 60

Lys Asn Lys Arg Arg Xaa Asp Ser Leu Val Met Asp Lys Ile Leu Thr
65 70 75 80

Thr Val Phe Pro Xaa Gly Ile Pro Tyr Xaa Xaa Phe Asn Phe Phe Phe
85 90 95

Ser Leu Lys Asn
100

<210> 1665

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1725

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1665

Ser Ala Pro Gly Gly Ser Cys Tyr Ser Gly Xaa Pro Arg Val Pro Lys
1 5 10 15

Cys Xaa Ile Gln Xaa Asp Pro Xaa Ser Xaa Pro Pro Cys Leu Gln Leu
20 25 30

Val

<210> 1666

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1666

Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Arg Glu Pro Gln
1 5 10 15

Val Tyr Thr Leu Pro Pro Ser Arg Glu Xaa Met Thr Lys Lys Gln Ser
20 25 30

Ala Glu Leu Pro Xaa Ser Xaa Gly Phe Tyr Pro Thr Lys Ser Pro
35 40 45

<210> 1667

<211> 34

<212> PRT

1726

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1667

Leu Glu Ile Thr Leu Gln Gly Glu Pro Lys Leu Arg Pro Pro Lys Pro
1 5 10 15

Glu Arg Ala Thr Leu Glu Gln Leu Lys Glu His Thr Pro Leu Phe Leu
20 25 30

Pro Xaa

<210> 1668

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1668

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Xaa

1727

| | | | |
|---|----|----|----|
| 1 | 5 | 10 | 15 |
| Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg | | | |
| 20 | 25 | 30 | |
| Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr | | | |
| 35 | 40 | | |

<210> 1669

<211> 96

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1669

| |
|---|
| Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg |
| 1 5 10 15 |

| |
|---|
| Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly |
| 20 25 30 |

| |
|---|
| Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly |
| 35 40 45 |

| |
|---|
| Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe |
| 50 55 60 |

| |
|---|
| Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala |
| 65 70 75 80 |

Leu Ala Val Xaa Ser Ser Gly Xaa Arg Leu Ala Gly Gly Thr Pro Thr
85 90 95

Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser
85 90 95

1729

Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa
100 105 110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa
115 120 125

Phe Leu Val Val Pro Val Xaa Glu Ala Phe Gln Asn
130 135 140

<210> 1671

<211> 34

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1671

His Xaa Xaa Met Glu Ser Asp Lys Met Val Thr Gly Ser Trp Gly Pro
1 5 10 15

Arg Leu Ser Xaa His Glu Gly Cys Ser Ala Xaa Cys Ile Ser Val Tyr
20 25 30

Val Val

<210> 1672

<211> 113

1730

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1672

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Leu | Leu | Thr | Ile | Xaa | Glu | Ser | Trp | Tyr | Xaa | Cys | Arg | Tyr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ile | Pro | Gly | Gly | Ile | Pro | Leu | Ser | Pro | Arg | Asp | Pro | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Trp | Pro | Thr | Arg | Ser | Arg | Glu | Ser | Leu | Arg | Glu | Arg | Arg | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ala | Ala | Ser | Gly | Leu | Gly | Ile | Arg | Pro | Leu | Gly | Pro | Pro | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Arg | Val | Gly | Arg | Asn | Arg | Arg | Leu | Ala | His | Leu | Ala | Trp | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Pro | His | Val | Val | Ile | Val | Gln | Ile | Asn | Ala | His | Ser | Glu | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Phe | Leu | Lys | Phe | Asn | Ile | Val | Phe | Val | Ile | Leu | Lys | Tyr | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

Leu

<210> 1673

<211> 86

<212> PRT

<213> Homo sapiens

<220>

1731

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1673

Pro Ala Phe Asn Phe Asp Pro Leu Phe Phe Leu Phe Val Arg Cys Thr
1 5 10 15

Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu
20 25 30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser
35 40 45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr
50 55 60

Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu
65 70 75 80

Thr Val Phe Ile Xaa Leu
85

<210> 1674

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1674

Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala
1 5 10 15

Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro
20 25 30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro
35 40 45

Arg Leu Leu Arg Leu Gly Arg Tyr
50 55

<210> 1675

<211> 65

<212> PRT

<213> Homo sapiens

<220>

1732

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1675

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Cys | Ile | Leu | Pro | Lys | Val | Arg | Xaa | Pro | Thr | Leu | Gly | Ile | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ile | Val | Ile | Leu | Val | Xaa | Ile | Leu | Pro | Gly | Val | Met | Tyr | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Ala | Leu | Asn | Val | Cys | Ile | Ala | Thr | Xaa | His | Gln | Ile | Leu | Asn |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ser | Phe | Gly | Trp | Asn | Tyr | Lys | Leu | Lys | Lys | Cys | Phe | Ser | Gly |
| | | 50 | | | | 55 | | | | | | 60 | | | |

Lys

65

<210> 1676

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1676

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Glu | Gln | Val | Thr | Leu | Gly | Ile | Thr | Ala | Gln | Ser | Tyr | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Ile | Asn | Asn | Arg | Val | Tyr | Asp | Leu | Asp | Val | Gly | Ser | Gly | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Gly | Ala | Ala | Ala | Ile | Lys | Gly | Ser | Phe | Xaa | Gln | Arg | Leu | Lys |
| | | | 35 | | | | | 40 | | | | | 45 | | |

1733

Ser Tyr Val Ile
50

<210> 1677

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1677

Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Lys Lys

1

5

10

15

Lys Lys Lys Lys Lys Lys Gly Gly Arg Xaa Lys Gly Ser Lys Leu Thr

1734

20 25 30

Tyr Xaa Cys Met Xaa Arg Xaa Ser
35 40

<210> 1678
<211> 49
<212> PRT
<213> Homo sapiens

<400> 1678
Thr Ala Ala Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr
1 5 10 15
Asn Val Ala Val Val Arg Met Lys Arg Ala Arg Lys Arg Phe Glu Ile
20 25 30
Ala Cys Tyr Arg Asn Lys Ser Ser Ala Gly Gly Gly Leu Trp Lys Lys
35 40 45
Thr

<210> 1679
<211> 51
<212> PRT
<213> Homo sapiens

<400> 1679
Ala Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln Lys
1 5 10 15
Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr
20 25 30
Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly
35 40 45
Leu Leu Lys
50

<210> 1680
<211> 41
<212> PRT
<213> Homo sapiens

1735

<400> 1680

Ala Phe Asn Arg Ser Gln Arg Gly Ser Cys Ser Ala Thr Tyr Glu Thr
1 5 10 15

Pro Thr Gln Lys Gln Val Val Tyr Glu Trp Phe Ser Ala Arg Phe Pro
20 25 30

Thr Asn Val Arg Cys Val Thr Gly Glu
35 40

<210> 1681

<211> 34

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1681

Gly Xaa Gly Val Arg Val Asn Val Arg Thr Ser Ala Gly Cys Ser Pro
1 5 10 15

His Pro Asn Pro Leu Pro Lys Gly Arg Arg Gly Pro Val Thr Gln Phe
20 25 30

Ala Leu

<210> 1682

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1736

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1682

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Asn | Ser | Asn | Tyr | Ala | Leu | Ile | Gly | Ala | Leu | Arg | Ala | Val | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Thr | Ile | Ser | Tyr | Glu | Val | Thr | Leu | Ala | Ile | Ile | Pro | Thr | Ile | Asn |
| | | | | 20 | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Asn | Xaa | Leu | Ala | Pro | Leu | Thr | Ser | Pro | Pro | Leu | Ser | Gln | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Thr | Pro | Glu | Tyr | Pro | Ala | Ile | Ile | Thr | Leu | Trp | Pro | Tyr | Xaa |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Phe | His | Thr | Arg | Xaa | Asn | Asn | Glu | Pro | Pro | Ser | Xaa | Leu | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | |
|-----|-----|-----|-----|-----|
| Lys | Gly | Asn | Phe | Xaa |
| | | | | 85 |

<210> 1683

<211> 53

<212> PRT

<213> Homo sapiens

<400> 1683

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Leu | Glu | Ile | Asn | Met | Leu | Ala | Phe | Ile | Pro | Val | Leu | Thr | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Asn | Pro | Arg | Ser | Thr | Glu | Ala | Ala | Ile | Lys | Tyr | Phe | Leu | Thr |
| | | | | 20 | | | | 25 | | | | | | 30 | |

Gln Ala Thr Ala Ser Ile Ile Leu Leu Ile Ala Ile Leu Phe Asn Asn
35 40 45

```
<210> 1684
<211> 169
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (152)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (154)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (156)
<223> xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (161)
<223> xaa equals any of the naturally occurring L-amino acids
```

<400> 1684
Pro Val Ser Ala Lys Lys Glu Lys Lys Val Ser Cys Met Phe Ile Pro
1 5 10 15

Asp Gly Arg Val Ser Val Ser Ala Arg Ile Asp Arg Lys Gly Phe Cys
20 25 30

Glu Gly Asp Glu Ile Ser Ile His Ala Asp Phe Glu Asn Thr Cys Ser
35 40 45

Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu
50 55 60

1738

Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg
 65 70 75 80
 Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser
 85 90 95
 Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu
 100 105 110
 Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys
 115 120 125
 Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu
 130 135 140
 Ser Xaa Arg Thr Ser Ser Trp Xaa Ala Xaa Thr Xaa Ser Glu Asp Glu
 145 150 155 160
 Xaa Gly Arg Ser Glu His Pro Asp Thr
 165

<210> 1685

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1685

```

gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60
aattcgaggg tgcaccgtca gtcttctctt tcccccaaaa acccaaggac accctcatga 120
tctcccgga ccttgaggtc acatgcgtgg tgggtggacgt aagccacgaa gacctgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300
ggctgaatgg caaggagtac aagtgaagg tctccaacaa agccctccca acccccatcg 360
agaaaacccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacgcctcc cgtgctggac tccgacggt ccttcttctt ctacagcaag ctcaccgtgg 600
acaagagcag gtggcagcag gggaaacgtc tctcatgctc cgtgatgcat gaggtctctg 660
acaaccacta cagcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720
gactctagag gat 733

```

<210> 1686

<211> 5

<212> PRT

<213> Homo sapiens

1739

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1686

Trp Ser Xaa Trp Ser

1 5

<210> 1687

<211> 86

<212> DNA

<213> Homo sapiens

<400> 1687

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60
cccgaaatat ctgccatctc aattag 86

<210> 1688

<211> 27

<212> DNA

<213> Homo sapiens

<400> 1688

gcggcaagct ttttgcaaag cctaggc 27

<210> 1689

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1689

ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60
aaatatctgc catctcaatt agtcagcaac catagtccccg cccctaactc cgcccatccc 120
gcccctaact ccgcccagtt ccgcccattc tccgcccacat ggctgactaa ttttttttat 180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
ttttggaggc ctaggctttt gcaaaaagct t 271

<210> 1690

<211> 32

<212> DNA

<213> Homo sapiens

<400> 1690

gcgctcgagg gatgacagcg atagaacccc gg 32

1740

<210> 1691

<211> 31

<212> DNA

<213> Homo sapiens

<400> 1691

gcgaagcttc gcgactcccc ggatccgcct c

31

<210> 1692

<211> 12

<212> DNA

<213> Homo sapiens

<400> 1692

ggggactttc cc

12

<210> 1693

<211> 73

<212> DNA

<213> Homo sapiens

<400> 1693

gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60
ccatctcaat tag 73

<210> 1694

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1694

ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct 60
caattagtca gcaaccatag tcccggccct aactccgcc atcccgcccc taactccgcc 120
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
cttttgcaaa aagctt 256

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P 19/34

US CL : 435/91.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/91.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, SCISEARCH, GenEmbl Database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-------------------------------------|
| Y | Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007. | 1-12, 14-16, and 21 for SEQ ID NO:1 |
| Y | BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document. | 1-12, 14-16, and 21 for SEQ ID NO:2 |
| Y | Database GenEmbl on STN. SKUCE, C. 'Homo sapiens chromosome 20 clone RP4-661120 map q11.23-12', GenEmbl Database, Accession AL031669, Version AL031669.18 GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), see nucleotide position 63147-63482. | 1-12, 14-16, and 21 for SEQ ID NO:3 |
| Y | Database GenEmbl on STN. RAKER, V.A. 'Human SnRNP core protein Sm D2 mRNA, complete cds', GenEmbl Database, Accession U15008, Version U15008.1 GI:600747, 10 December, 1994 (10.12.1994), see nucleotide position 23-479 | 1-12, 14-16, and 21 for SEQ ID NO:4 |
| Y | Database GenEmbl on STN. ELLER et al. 'Cellular retinoic acid-binding protein [human, skin, mRNA, 735 nt]', GenEmbl Database, Accession S74445, Version S74445.1, GI:241541, 7 May, 1993 (07.05.1993), see nucleotide position 7-733. | 1-12, 14-16 and 21 for SEQ ID NO:6 |



Further documents are listed in the continuation of Box C.



See patent family annex.

| | | | |
|---|---|--|--|
| <p>* Special categories of cited documents:</p> | | <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> | |
| "A" | document defining the general state of the art which is not considered to be of particular relevance | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "E" | earlier application or patent published on or after the international filing date | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" | document member of the same patent family |
| "O" | document referring to an oral disclosure, use, exhibition or other means | | |
| "P" | document published prior to the international filing date but later than the priority date claimed | | |

Date of the actual completion of the international search

03 May 2000 (03.05.2000)

Date of mailing of the international search report

26 JUL 2000

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Michael Woodward

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|--------------------------------------|
| Y | Database GenEmbl on STN. SHARMA et al 'Human class III alcohol dehydrogenase (ADH5) cbi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277. | 1-12, 14-16, and 21 for SEQ ID NO:8 |
| Y | Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038. | 1-12, 14-16, and 21 for SEQ ID NO:10 |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expression of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☒ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☒ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.